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ABSTRACT

This report and resource package is the result of a one-year developmental research and utilization project dealing with multimodal career education for nursing students. First, a report is presented that outlines the purposes, methods and procedures, and results of the project. Discussed in a position paper of the problem of retaining nurses in the work force are the shortage of nurses, attrition and job dissatisfaction, and the recommendations of the Texas Blue Ribbon Committee. The next section consists of an instructional resource guide for multimodal career education that covers the following topics: multimodal career assessment, multimodal career education, student evaluation, multimodal career development resources, sample course outlines, and exemplary activities. Addressed in a convention paper on multimodal career education for nursing students are multimodal behavioral therapy, the BEST IDEA in career education model, and multimodal and behavioral assessment. Appendixes to the package include a structured interview for multimodal career assessment, a career development questionnaire, a daily self-talk log for nursing students, a multimodal career development chart, a sample multimodal career development activity, a formative evaluation of the multimodal career education approach, and a model for developmental research and utilization. (MN)

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MULTIMODAL CAREER EDUCATION
FOR NURSING STUDENTS
Final Report and Resource Materials

TEA Project No. 11230051

Stephen Southern
Project Director

Karon Topper
Research Associate

Nancy Raley
Research Associate

Glen Walton
Research Associate

ODESSA COLLEGE
Odessa, Texas

1981

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Preface

This project was conducted as applied research funded by the Texas Education Agency and administered through their Research Coordinating Unit, Occupational Administrative Services. Copies of this combined final report and instructional resource package are available from Mr. Danny Bristow, Director of the Research Coordinating Unit, Texas Education Agency, 201 East 11th, Austin, Texas 78701.

"Multimodal Career Education for Nursing Students" was a labor of love for the project director, Stephen Southern, and two of the project consultants, Robert L. Smith of East Texas State University in Commerce and Charles Hannaford of North Texas State University in Denton. Southern and Smith worked together for several years developing the multimodal approach to career education which was explored and expanded in the project. Hannaford and Southern engaged in writing and consulting regarding the impacts of job stress and dissatisfaction upon attrition in nursing. Therefore, the present project represents the natural convergence of several sets of related interests. When there is a lack of goodness in fit among the sets, it is probably related to the novelty of the approach rather than a lack of enthusiasm or cooperation.

Several other persons have played instrumental roles in the pursuit of project objectives. An excellent advisory committee, chaired by Hannaford, provided crucial direction to the review of the nurse shortage problem and the design of the career education venture. Each committee member contributed timely observations which were, most importantly, related to the perspectives and concerns of nurses in the field. The committee consisted of Kiar First, Clinical Coordinator, Associate Degree Nursing, El Centro College, Dallas; Clair Jordan, Director of the Texas Nurses Association, Austin; Anna Pearl Rains, Executive Director for

Inpatient Nursing Services, The University of Texas Medical Branch at Galveston; and Barbara Wiechmann, Director of Contemporary Staffing, Inc., Dallas.

Patricio Jaramillo of the University of Texas of the Permian Basin, Odessa, provided valuable consultation regarding test selection and special populations. Ann Winn, Director of Career Ladder Nursing at Odessa College, was very helpful in opening her program to our research and development efforts. Finally, James Zukowski of the Occupational Curriculum Development Center at the Universtiy of Texas at Austin offered his expertise in postsecondary curriculum development. Thank you all.

Abstract

This final report and resource package is the result of a one-year developmental reserach and utilization project. The project is discussed from several perspectives.

Need

The state of imbalance between supply of skilled nurses and demand in health services delivery is essentially a problem of retaining individuals in training programs and work settings. Multimodal career education provided a viable model for guiding nursing students through career development and human relations training. Comprehensive career education was identified as a promising approach to countering the long-range nurse shortage. Review of the literature and expert opinion identified the major need for systematic training in this area.

Objectives

The objectives of the project included forming an advisory committee and conducting a literature review to identify attrition and career education problems. In order to address identified needs, a position paper, an instructional resource guide (including assessment package), a course outline, a quasi-experimental trial of selected curricula, and a convention presentation were completed. The results of the project were widely disseminated.

Procedures

The products of the project were constructed by means of a developmental reserach and utilization model. The effects of multimodal career education were determined by a quasi-experimental trial and a qualitative evaluation strategy.

Specific Results to be Produced and Potential Utilization of Results

The following materials were produced as a result of the project: a position paper, including the report of an advisory committee regarding the attrition and job dissatisfaction problems; a set of exemplary instructional resource materials including a course outline, a multimodal career assessment battery, and an instructor's guide; a brief research report, including the results of the quasi-experimental trial and qualitative evaluation of the model curricula; quarterly progress reports; and two hundred copies of this comprehensive final report which incorporated the aforementioned materials. One report of the project was provided at the 1981 American Personnel and Guidance Association Convention in St. Louis, Missouri. At least one professional publication is in progress.

The project should result in improved teaching techniques and curriculum materials that will be used in a substantial number of classroom or other learning situations within five years after the termination date of the project. The materials that were produced and the data that were generated should significantly impact the career education, human relations training, and, ultimately, the retention of able nurses in the workforce.

CONTENTS

Page

ABSTRACT iii

Section (Color)

Final Report (Blue) FINAL REPORT: MULTIMODAL CAREER EDUCATION FOR NURSING STUDENTS

Need for the Project 1

Purposes of the Project. 2

Limitations of the Project 3

Methods and Procedures 4

Results. 19

Conclusions and Recommendations. 70

Reference Notes. 71

References 73

Position Paper (Ivory) THE PROBLEM OF RETAINING NURSES IN THE WORKFORCE

The Shortage of Nurses 3

Attrition and Job Dissatisfaction. 5

Recommendations by the Texas Blue Ribbon Committee 7

Advisory Committee Report. 13

Summary. 18

Reference Notes. 22

References 23

Resource Guide (White) AN INSTRUCTIONAL RESOURCE GUIDE FOR MULTIMODAL CAREER EDUCATION

Introduction. 1

Multimodal Career Assessment. 3

Multimodal Career Education 6

Student Evaluation. 13

Multimodal Career Development Resrouces 15

Exemplary Course Outlines 17

Exemplary Activities. 27

References. 195

Convention Paper (Gray) MULTIMODAL CAREER EDUCATION FOR NURSING STUDENTS

Introduction. 2

Career Education. 5

Multimodal Behavior Therapy 6

The BEST IDEA in Career Education 8

Applications of the Model 10

Multimodal and Behavioral Assessment. 11

Summary 23

Reference Notes 25

References. 26

Appendices (White) APPENDICES

A. Multimodal Career Assessment: Structured Interview Protocol and Other Resources. 3

B. Career Development Questionnaire and Scoring Resources 9

C. "Daily Log" (Nursing Self-Talk Log) and Instructions. 24

D. Outcome Measures in Study 28

E. Multimodal Career Development Chart: Social Validation by Other. 30

F. Exemplary Multimodal Career Development Activity. 35

G. Formative Evaluation: Initial Outcomes of Multimodal Career Education 47

H. Developmental Research and Utilization. 57

I. Exercise Evaluation 60

9

FINAL REPORT

Multimodal Career Education for Nursing Students

TEA Research Project #11230051

Stephen Southern
Project Director

Karon Topper

Nancy Raley

Glen Walton

Research Associates

ODESSA COLLEGE
Odessa, Texas

1981

The present project used a developmental research and utilization model to explore the impact of multimodal career education upon the career and personal development of nursing students. During the course of the applied research, the literature was reviewed and expert opinion was secured in order to assess factors related to the critical shortage of nurses. The need for the project, the purposes, limitations, methods or procedures, and results are discussed in the sections which follow.

Need for the Project

The state of imbalance between the supply of nursing students and graduates and the demand for professional nurses in hospitals and other settings is critical. The nurse shortage has received much attention recently (see Texas Hospital Association, 1979); however, most recommendations regarding solutions to the attrition problem have focused upon large-scale, social and economic approaches. For example, the Texas Blue Ribbon Committee (Texas Nurses Association, 1981) recommended increasing admissions to nursing school by 20 percent in order to provide a short-range solution. Job dissatisfaction and problems in professional development are major influences upon the pervasive frustration which leads to large numbers of qualified persons leaving the active workforce.

"The Problem of Retaining Nurses in the Workforce" is a position paper contained herein (Ivory pages). The paper directly addresses the need for multimodal career education by reviewing the data on the shortage of nurses, the extant literature on attrition and job dissatisfaction, the recommendations by the Texas Blue Ribbon Committee, and the views of an advisory committee composed of leaders in professional nursing. The entire position paper should be reviewed for additional information related to the need for the project.

Nurses wish "...to help people via direct patient care, to use special skills, to administer care, and to achieve a feeling of self-worth and personal satisfaction on the job" (Texas Nurses Association, 1981, p. 23). This statement is an excellent summary of the goals of career guidance and vocational education, in general. If the nursing career were viewed as lifelong learning and personal growth, then dissatisfaction and frustration need not result in withdrawal from the student or hospital. Nursing students need an adequate, reality-based orientation to the field, an ongoing support system, and a specialized training program regarding the role of the nurse in the total health care effort. Interventions designed to enhance the personal development of nursing students, and pool of potential graduates from which hospitals must draw, also address the professional development of nursing as an occupation.

Purposes of the Project

The major purpose of a developmental research and utilization project is to initiate, and then sustain, a process of systematic investigation. The central purpose of this project fits well with the aforementioned definition. In order to indirectly reduce attrtion among professional nurses in hospitals, the present project attempted to directly address job dissatisfaction and problems in professionalization as factors in career development. The purpose of the project was to investigate the relationships among the nurse shortage, frustration with the nursing role, and the needs for specialized training in career exploration and human relations skills. In order to conduct a systematic investigation, a developmental research and utilization model (pp. 13-16) was applied to following objectives of the project:

> Form an advisory committee consisting of nurse educators, employers of postsecondary program completers, and vocational guidance professionals to investigate the extent of the problem

of retaining nurses in the workforce and to suggest instructional approaches for alleviating the problem;

Conduct an extensive literature review in order to specify factors related to job dissatisfaction and the state-of-the-art with repsect to career education and human relations training for nursing students;

Develop a course outline, a multimodal career assessment package, and as instructional resource guide, consisting of teaching and organizational strategies and multimodal student activities;

Conduct a quasi-experimental investigation of the effects of multimodal career education upon the career development of Associate Degree nursing students; and

Disseminate copies of a special report which describes the project for interested professionals in vocational guidance, student services, and nurse education.

Methods and procedures were selected with the aim of conducting a developmental research and utilization project. However, the very nature of the project placed some limitations on the outcomes, and especially, interpretations of specific results.

Limitations of the Project

Since this project followed the developmental research format, the investigative efforts and outcomes must be cautiously evaluated. The literature review, expert opinion, and pilot test data suggest that multimodal career education is an appropriate intervention for self-imposed and external impediments to professional develpment. However, the results are tentative so no conclusions should be drawn regarding the specific effects of the multimodal approach. Rather, the project identified the potential of multimodal career education as a progessional development tool. The dissemination efforts of the developmental research and utilization model were intended to make the project a catalyst for future, more rigorous reserach.

Interpretations of the finding should also be qualified in light of the limited population subjected to study. The sample for the quasi-experimental trial was so small that parametric analysis was abandoned in favor of qualititative evaluation. Overall, the group of entry-level Associate Degree nursing students may not be representative of other nursing students, including those in community college programs, or future RNs. Therefore, generalization from pilot test results is very limited. Based upon the continuing good performance of Odessa College graduates on state board examinations, the project staff contends that the study sample is representative of entry-level, successful nursing students from a small community college program. At any rate, conclusions and recommendations based upon the literature review and advisory committee meeting should apply to all students and graduates.

Two other limitations must be noted. Although review and organization activities commenced in July 1980, final approval for the project was not granted by the Texas Education Agency until 19 September 1980. Thus, some minor time constraints limited the early review phases. In addition, there were several personnel changes in which valuable time was lost. Like nursing, vocational guidance and student services are fields in which salaries and other basic needs take precedence over more esoteric concerns. Nevertheless, the outcomes of the project were satisfying and the staff plans on continuing the developmental research.

Methods and Procedures

The methods and procedures were selected to pursue project objectives within the developmental framework. Specific tasks, organized according to the project timeline and the research model, are discussed in the sections which follow. The overall project was based upon a rationale which was initially provided in the proposal for funding and subsequently expanded in a professional report which is reproduced in this volume (see Gray pages). The initial rationale builds a case for the project within emerging trends of the literature.

Rationale

According to the Section 130 of Public Law 94-482, Educational Amendments of 1976, a priority of occupational research is the utilization of federal funds for developing curricula and resource materials to improve vocational instructional programs. Current health workforce studies (Coordinating Board, 1979; Texas Hospital Association, 1979) indicate that demand for skilled personnel exceeds supply in many areas of Texas. In the hospital setting, demand for appropriately trained, professional nurses is so critical that "bounties" or inducements are offered through conferences and placement services to recruit staff for sites across the nation (Haddad, Note 1). One factor in the imbalance between supply and demand is the rapid turnover and dramatic drop out rates among skilled nurses (LaRochelle, Note 2; Texas Hospital Association, 1979). Potential solutions to the problem of labor market imbalance are relevant, comprehensive vocational guidance and career education for student nurses. Responsible career counseling and human relations training prepare the nursing student for effective clinical education, job acquisition and maintenance, and professional advancement (Adams, Note 3; Coordinating Board, 1974; Texas Health Careers Program, 1978; U. S. Department of Labor, 1979). A "multimodal career education" model, which was designed to insure relevance and accountability, was pilot tested with nursing students. Preliminary results suggested that the model had value for further developing career assessment tools and instructional resource materials.

The state of imbalance between supply of skilled nurses and demand in health services delivery is essentially a problem of retaining individuals in training programs and work settings. Some nursing students leave training programs due to inaccurate assumptions regarding the clinical side of education (Adams, Note 3). For example, individuals may enter nursing based upon sincere desires to help people; however, communicating with terminally ill patients, working demanding shifts, and treating patients with bleeding wounds present potentially aversive realities for unprepared students. Other nursing students leave training programs due to deficits in study skills, basic education, and interpersonal behaviors (Winn, Note 4). Some educators and employers assume that nursing students possess requisite human relations skills when they enter training or will develop the skills on the job after completing technical education (First, Note 5). Deficits in human relations skills which are not systematically addressed in training pose potential obstacles to retention among students and recent graduates of nursing programs.

A common anecdotal report regarding reasons why nurses leave the workforce is a dissatisfaction with working relationships (see Adams, Note 3). Due to occupational stresses and inadequate understanding of professional relationships in the health field, both recent graduates and experienced nurses may experience conflicts with supervisors, physicians, and allied health co-workers. With increasingly complex and responsible duties in health services delivery, nurses may lack role identification and ambition for professional advancement. Trends toward greater specialization and independent practice--manifested in new and emerging occupations such as physician's assistant and nurse practitioner (Kuritsky & Reeder, 1971: LaRochelle Note 4)--offer significant opportunities for personal and professional growth. However, nurses often accept assumptions which, in effect, limit their career development and contribute to workforce imbalance.

Nurses leave the workforce to marry, to raise children, to pursue advanced education, and to accept alternative employment. Multiple entry and exit curricular approaches (Coordinating Board, 1974) and career ladder programs (Anderson, 1972; Kingston & Freeland, 1971: Lavine & Moore, 1977; Odessa College, 1979) significantly contribute to retention by providing access to continuing education and career advancement. However, nurses in training should be made aware of professional opportunities early in their studies through systematic career education.

Career education is process-oriented, "learning how to learn" (Bailey & Stadt, 1973). Career education that is both comprehensive and systematic addresses many of the aforementioned retention problems. Instruction can be infused within existing curricula or offered as a self-contained unit such as a career exploration course. Career education can be an integral component of academic and vocational instruction in college (Harris & Grede, 1979). In nursing education, the career development programs would focus upon examining personal assumptions regarding professionalism, clinical training, and advancement. The career development program would be best incorporated within a single course which explicitly deals with student nursing concerns including: study skills training, basic remedial education, occupational information, job acquisition and maintenance, and human relations training. Although many nursing education programs excel in incorporating these content areas in core curricula, the programmatic demands with respect to licensure and registry and the associated time constraints suggest that career education should be offered as a single, highly relevant, supplementary course.

Since psycholgoy coursework is usually required for accreditation in nursing and allied health education programs (see American Medical Association, 1978; Odessa College, 1979), career development activities can be readily included in the curriculum of a specialized psychology course.

At Odessa College, career education for nursing students has been conducted in a special section of a two-semester hour psychology course entitled "Personal Development." From its inception, the course was intended to promote greater awareness of educational and occupational opportunities as well as the acquisition of skills in the following areas: effective studying, decision-making, communicating, and interacting (Odessa College, 1979). Similar courses are offered in community colleges across the state. During the Spring and Fall 1980 semesters at Odessa College, the course was organized according to a comprehensive model, "multimodal career education."

Multimodal career education is a system of assessment and learning activities which guides the student through the career development process. The approach is highly individualized in order to take into account the special learning needs of disadvantaged, nontraditional, returning adult, and handicapped students. Multimodal career education takes into account all aspects of "career" as a lifelong learning process. The approach is well founded in light of trends in career education and vocational guidance.

Career education emerged during the 1970's as a major component in the educational reform movement which addressed the needs for greater relevance and accountability in education (Bailey & Stadt, 1973). Similarly, career development programs have stressed systematic, comprehensive learning experiences which link the interests and abilities of the individual student with demands and shifts of the world of work (Herr & Kramer, 1972; Hoyt et al., 1972). In this manner, education becomes a lifelong, individuation process that also meets the needs of the community.

Early theorists (e.g., Ginzberg et al., 1951; Holland, 1966, Hoppock, 1967; Roe, 1957; Super, 1957) recognized that career development and maturation occur as functions of the entire person interacting with impinging environments. Aspects of the entire person included values, interests, personality factors, self-concepts, and other cognitive and behavioral variables. Aspects of impinging environments included labor market characteristics, education requirements, family relationships, socioeconomic levels, and other social structures. Career education, in order to remain relevant and accountable, must simultaneously focus upon the personal and environmental factors.

Multimodal career education addresses both personal and environmental factors in assessing career development needs and selecting learning experiences to build skills. The multimodal approach is based upon the "BASIC ID" counseling model of Arnold Lazarus (1973, 1976), a psychologist at Rutgers University. Lazarus developed the model to counter the tendency among professional helpers to aimlessly "muddle" in one area of human functioning. He contends that systematic attention to each major area of functioning is required to insure treatment effectiveness, maintenance of counseling gains, and generalization of new skills across settings (Lazarus, 1973, 1976).

Lazarus' "BASIC ID" refers to seven fundamental modalities: behavior, affect, sensation, imagery, cognition, interpersonal relations, and drugs. His broad-spectrum "multimodal behavior therapy" has been applied in elementary school guidance activities (Keat, 1978) and career education

(Gerler, 1977). Smith and Southern (1979) adapted the "BASIC ID" to more specifically meet career counseling needs of students. The present multimodal career eucation approach represents an expansion of the career counseling effort.

The "BEST IDEA" in career education is the culmination of preliminary developmental research. While other multimodal approaches (e.g., Gerler, 1977) have been comprehensive, they have not been "systematic" in the sense that individual career development concerns are addressed according to specific priorities. Multimodal career education, via the "BEST IDEA" model, systematically considers programmatic concerns of the school (environmental factors) as well as individual career development concersn (personal factors). The model has provided a viable framework for insuring full coverage of the modalities within existing vocational education programs.

The "BEST IDEA" acronym refers to an expansion of the multimodal career education model to insure that programs address individual career development needs. Although the labels of the areas have been modified, the "BEST IDEA" incorporates Lazarus' seven modalities as well as other factors within its boundary. The modalities have been conceived as primary factors, setting events and referent conditions, and secondary factors, or individual variables. Primary factors receive initial attention in individualized career development activities because these factors influence the frequencies and strengths of secondary variables. Secondary factors, internal and external individual responses, must be considered when the potential confounding of the setting events and referent conditions has been eliminated. In fact, work with primary factors may be effective enough to reduce or suppress individual career problems expressed at the secondary level of assesment. The multimodal career education model is presented in Table 1.

Table 1

"BEST IDEA" in Career Education

Acronym		
B	Behavior	Observable actions or responses
E	Emotion	Covert behaviors or psychological arousal
S	Self-talk	Internalized speech
T	Thought	Images, daydreams, or fantasies
I	Interpersonal Relationships	Interactions with one or more persons
D	Developmental Level	Age-appropriate and special learning needs
E	Economic & Societal Factors	Cultural and socioeconomic influences
A	Alpha Factors	Significant physiological setting factors such as drug use or poor nutrition

Each of the factors address individual career development needs which arise from personal and environmental variables. The personal variables are represented by the "BEST" acronyms while environmental concerns, or primary variables, are represented by the "IDEA" acronyms. The environmental factors supercede personal factors because the former provide the situtuations which control the extent and duration of the latter factors. Thus, assessment of primary factors and design of appropriate learning experiences based upon identified needs are major concerns of multimodal career education. Modification of secondary, personal factors also follows systematic assessment; however, individualized learning experiences are not considered until primary impediments to career development have been resolved. The "BEST IDEA" model includes components which have been linked typically with career education.

Bailey (1976) identified the ends of career education as (1) understanding and implementing self, (2) understanding and preparing for work, (3) accepting responsibility for career planning, (4) developing skills in decision-making and information processing, (5) relating to individuals and groups, and (6) developing and clarifying attitudes and values toward work. In Texas, Occupational Orientation at the secondary school level deals with the ends of career education in four areas of study: self-appraisal, economic and societal factors, occupational clusters, and educational planning (Occupational Curriculum Laboratory, 1979). Therefore, career education may be considered a series of exploration activities in which the individual and the world of work are investigated. The "BEST IDEA" provides a framework for guiding nursing students through the exploration projects.

As a guide to assessment and instruction, multimodal career education insures that specific career development needs of individual students are addressed. The model has been implemented successfully in a pilot study at Odessa College. Nursing students have unique needs for career education and human relations training which can be met through a special psychology course. The course represents a unit of instruction designed to supplement technical training in the nursing education sequence of postsecondary institutions. Multimodal career education can contribute to occupational skill-building that is not included in nursing education due to programmatic demands and time constraints. Experts in the field (e. g., Adams, Note 3; First, Note 5; LaRochelle, Note 2; Winn, Note 4) and major studies (Anderson, 1972; Junge, 1975; Kuritsky & Reeder, 1971; Lavine & Moore, 1972; McClurg, 1978; Whitman et al., 1973) have suggested that career education and human relations training significantly contribute to retention of nurses in the workforce, a major vocational concern. Therefore, this project addressed problems identified by nursing educators and employers in the rapidly expanding allied health delivery systems.

Developmental Research and Utilization

The Developmental Research and Utilization (DRU) model of Edwin Thomas (1977) was well-suited to its application in the project because it represents a comprehensive planning perspective rather than a restrictive set of guidelines. According to Thomas (1977), The DRU model represents a means by which social technology is innovated. Although the model emerged from Thomas' pragmatic approach to social work practice and research, developmental research and process-oriented utilization strategies are deeply rooted in educaiton.

Planned change and educational innovation formulations have profoundly affected the systems approach to curriculum development. The well-known classification scheme of Guba and Clark (1965) and the planned change approach of Havelock (1970) and others at the Center for Research on Utilization of Scientific Knowledge, Institute of Social Research (University of Michigan) contributed much to the Developmental Research and Utilization (DRU) model. The model's emphasis upon diffusion as well as production is characteristic of the systems-oriented planned change (or innovation) methodology.

The DRU model includes three research phases--Analysis, Development, and Evaluation--and two utilization phases--Diffusion and Adoption. The model is presented in detail in Table 2.

Table 2

Developmental Research and Utilization Model

Developmental Research Phase	Concerns	Operations	Exemplary Activities
I. Analysis	A. Problematic Human Condition	1. Problem Statement	Problem analysis and identification, "state of the art" review
	B. Basic Information Source	2. Information Selection	Selection of most relevant source, such as basic or applied research, scientific technology, practice experience
II. Development	C. Relevant Data	3. Information Gathering and Assessment	Literature review, site visits, consultation
	D. Product Design	4. Product Innovation	Novel assembly, novel application, invention, selection of curricular language
	E. New Product	5. Product Realization	Construction of prototype, written statement of practice procedure
III. Evaluation	F. Trial and Field Implementation	6. Trial Use	Pilot implementation, demonstration project, evaluation study
		7. Data Collection	Collection of outcome data by means of field experimentation, field study, evaluative research
	G. Outcomes of Use	8. Product Evaluation	Research evaluation, program evaluation, cost-benefit analysis

(Continued)

Table 2 (Continued)

Developmental Research and Utilization Model

Utilization	Concerns	Operations	Exemplary Activities
IV. Diffusion	H. Diffusion Media	9. Diffusion Media Preparation	Preparation of articles, books, and training media
		10. Product Information Dissemination	Publication, training, professional education, field demonstration workshop
V. Adoption	I. Broad Use	11. Implementation by Users	Use by practitioners, program change and administrative follow through
		12. Product Institutionalization	

Note: Evaluation often leads to product revision with subsequent testing and evaluation prior to Diffusion and Adoption.

The development research and utilization phases can be summarized according to the general curriculum model of Bailey and Stadt (1973, pp. 308-343). The phases of both models are related in Table 3.

Table 3

Relationships Among the DRU and General Curriculum Models

DRU Phase (Thomas, 1977)	General Curriculum Phase (Bailey & Stadt, 1973)
Analysis	Selection of a Curricular Language Formation of Goals and Objectives
Development	Preparation of Instructional Products
Evaluation	Experimental Tryout, Evaluation, and Quality Control
Diffusion	Diffusion
Adoption	Adoption

The gist of both models is the stepwise innovation, review, and dissemination of an educational product. This project attended to this process and enjoyed the opportunity to create a novel approach to career education for nursing students. The combined final report and resource package is a manifestation of the systems approach to curriculum development.

Procedures

The following sequence of activities was completed to satisfy the objectives of the project. The activities are labeled according to its phase and operation within developmental research or utilization.

1 July 1980 - 31 July 1981. In general, the activities conducted during this period were concerned with Analysis Operations.

1. Project personnel were selected (Pre-research phase).
2. Advisory committee members were identified (Analysis: Information Selection).
3. A state-of-the-art review of the attrition problem, career education, and human relations training for nursing students was initiated (Analysis: Problem Statement).
4. Commercial and free resource materials were identified and purchased as needed (Development: Information Gathering and Assessment).
5. Consultants were contacted in order to specify clearly the problem and the domain of the project (Analysis: Problem Statement and Information Selection).

1 August 1980 - 30 September 1980. Most of the activities completed during this period were concerned with Development Operations.

1. Advisory committee members and consultants were contacted for suggestions on literature review (Analysis: Information Gather- and Assessment).
2. The project staff produced a course outline for the Fall 1980 semester in order to create opportunities for trying-out materials (e.g., group activities) as they were developed (Development: Product Innovation).
3. The literatire review was initiated (Development: Information Gathering and Assessment).
4. Development of the multimodal career assessment package was initiated (Development: Product Innovation).

1 October 1980 - 31 December 1980. Development activities were continued during this period.

1. The course outline was expanded for general use and application in the Spring 1981 semester (Development: Product Innovation and Product Realization).
2. The multimodal career assessment package was completed (Development: Product Realization).
3. The advisory committee convened in Dallas and a rough draft of the position paper was reviewed (Development: Product Innovation and Product Realization).
4. Student activities and individual multimodal exercises were pilot tested during the semester (Development: Product Realization and Evaluation: Trial Use).
5. Literature review and consultation were substantially completed (Development: Inforamtion Gathering and Assessment).

6. Outcome measures and the research design for the quasi-expermental trial were selected (Analysis: Information Selection; Development: Product Realization; and Evaluation: Trial Use).
7. Writing of drafts of the instructional resource guide was initiated (Development: Product Innovation).
8. Distribution of reprints of "Multimodal Career Counseling: An Application of the BASIC ID" was continued (Diffusion: Diffusion Media Preparation and Product Information Dissemination).
9. American Personnel and Guidance Association convention program was proposed and preparation of the paper was initiated (Diffusion: Diffusion Media Preparation and Product Information Dissemination).

1 January 1981 - 31 May 1981. Since this period was one of great activity and change (e.g., personnel shifts), a variety of operations were completed or implemented.

1. The quasi-experimental trial of the curricula was conducted (Evaluation: Data Collection).
2. Due to the small sample size, descriptive statistics and qualitative data were gathered and analyzed (Evaluation: Data Collection and Product Evaluation).
3. A convention program and accompanying paper, "Multimodal Career Education for Nursing Students," were presented at the 1981 American Personnel and Guidance Association convention held during April 1981 in St. Louis (Diffusion: Product Information Dissemination).
4. The final draft of the position paper on retaining nurses in the workforce was completed (Development: Product Realization).
5. The literature review and instructional resource materials were completed (Development: Product Realization).
6. The special research report was not prepared since the comprehensive convention paper was completed (Analysis: Information Selection and Diffusion: Diffusion Media Preparation and Product Information Dissemenation).
7. Review of products by consultants was initiated (Evaluation: Product Evaluation).

1 June 1981 - 30 June 1981. This period was invested in the preparation of the final report (Diffusion: Diffusion Media Preparation). Two hundred copies of the final report resource package were provided to the Texas Education Agency after printing was completed (Diffusion: Product

Dissemination). Anna Winn, Head of Career Ladder Nursing at Odessa College, informed the project staff that components of multimodal career education will be infused in the curriculum (Adoption: Implementation by Users). Plans have been made to subject the approach to more rigorous research at several sites in the future (Evaluation: Product Evaluation).

The Developmental Research and Utilization model was an excellent tool for tracking the activities of the project. While activities were not always completed according to the timeline submitted with the grant proposal, recognition of the phases and operations provided important senses of status and direction. The various products of the project were developed at different rates, also. Therefore, the model enabled the project staff to review the relative standings of the product development efforts. The viability of developmental research and utilization in curriculum development is one of the conclusions of the project.

Results

The following products or resources were produced during the course of the project.

A report of the findings of the advisory committee entitled "The Problem of Retaining Nurses in the Workforce."

A set of exemplary course outlines which describe the purpose of the "Personal Development for Nursing Students" course, the goals and objectives, the training components, and the evaluative standards

A set of exemplary "Multimodal Career Education for Nursing Students" instructional materials including a multimodal career assessment package, an instructional resource guide, and career development activities/exercises

A professional paper entitled "Multimodal Career Education for Nursing Students" which was presented at the 1981 American Personal and Guidance Association convention

Five copies of quarterly progress reports which discussed attainment of project objectives

Two hundred copies of this comprehensive final report/resource package

The materials produced during the project should be immediately useful to vocational guidance specialists and nurse educators who wish to implment small scale pilot programs. The results of the applied research effort should present valuable data for designing rigorous, parametric research programs.

Formative Evaluation

Formative research to "tinker" with the components of multimodal assessment and career development intervention was conducted during the Spring 1980 and Fall 1980 semesters. There were trials of various instruments in the assessment battery and activities/exercises in the curriculum package.

In the Fall 1980 "Personal Development for Nursing Students" course, the multimodal approach was presented as a classroom lecture followed by completion of Multimodal Career Assessment charts by students. The procedure for completing the charts was similar to the guidelines contained in Appendix E. Students identified strengths and needs according to factor or modality. The most interesting finding of this review was that 27 percent of the total strengths identified by students were classified as Self-Talk, while 40 percent of the total needs (excesses/deficits) were also classified as Self-Talk. Therefore, the significance of self-talk in the shaping of nursing students toward or away from the profession was translated into an outcome variable (see Appendix C) for the quasi-experimental trial in the Spring 1981 semester.

A major formative evaluation of some objectives and instructional components in the project was conducted in the Fall 1980 semester. The sequencing of assessment and intervention was reviewed. In addition, close attention was directed to the attainment of minimal effectiveness level objectives. Evaluation of objectives included examination, demonstration of competency, observation of behavior, ratings by students, and ratings by instructors. Activities were evaluated by means of a ranking form (see Appendix I) completed after each activity or exercise.

Information gathered during and after the "Stress Management" and "Career Planning" components suggested that Odessa College nursing students require less instruction in these areas. Administration of the C-S Scale, a behavioral assessment of stress and coping, supported the general observation that they managed stress well enough to reduce the priority of stress management training. Similarly, observations of skills and student verbalizations indicated that training in job acquisition was unimportant. However, instruction in decision-making, selecting from among the ample opportunities, was valuable.

One of the most important findings in the formative evaluation was the extent of attrition among nursing students. The retention rates for Psychology 1201 classes are presented in Table 4.

Table 4

Psychology 1201 Retention Rates Among Nursing Students

Semester	N	Percent Enrolled in Nursing Next Semester	Percent Enrolled In College Next Semester	Percent Enrolled in Nursing Subsequently[a]	Percent Enrolled in College Subsequently[a]
Spring 1980	17	35.3	52.9	29.4	35.3
Fall 1980	25	72.0	80.0	b	b

[a] This percentage reflects a 70.6 percent attrition rate by the Spring 1981 semester. Overall, attrition rates at Odessa College are 60 percent across all programs.

[a] Data for the one-year follow-up will not be available until the start of the Fall 1981 semester which begins 27 August 1981.

The data contained in Table 4 reveal rather low retention rates or, conversely, high attrition rates. However, the rates are not unusual given the nearly 60 percent annual attrition rate for the college. During 1979-80, 61.4 percent of the students who formally enrolled in the nursing program completed the year. Therefore, the percentage of persons who attended Psychology 1201 classes in the Spring 1980 semester and completed one year at Odessa College, or enrolled in the nursing program during the year, was somewhat less than the percentage in the nursing program in general. However, during the Spring, there are more students who are completing academic prerequisites and who are not formally enrolled in the nursing program.

By the Fall 1980 semester, retention was greater among those who completed Psychology 1201 than those enrolled either in the nursing program or college in general. Multimodal career education was implemented on a large-scale during the Fall 1980. While there is some promise for a multimodal career education course as a tool for improving retention of students, the data are not sufficiently clear to draw conclusions. The results suggested that the project was on the right track. Certainly, no conclusions regarding the relationships among Psychology 1201 completion, nursing program retention, and workplace attrition, can be advanced. If appropriate controls were implemented such longitudinal research would be valuable. Long-term prospective investigations could adequately address the aforementioned relationships. However, the purposes of the present project was to develop and then study the initial effects of multimodal career education upon the career development of nursing students.

Quasi-Experimental Trial

After producing the instructional resources through developmental research and subjecting them to formative evaluation, the project staff planned to subject multimodal career education to a small, yet intensive, quasi-experimental trial in the Psychology 1201 classroom. The design that was originally selected for the trial was the nonequivalent control group (quasi-emperimental) design (see Campbell & Stanley,1963, pp. 47-58) in which pre- to post-test changes among Psychology 1201 students in several career development measures would be compared to changes among beginning nursing students who had not taken, and were not taking, Psychology 1201. Due to difficulties in securing a remotely comparable control group at mid-year and an untimely personnel change, a reality of applied research, the desired design was abandoned in favor of two more pragmatic approaches.

Since self-talk, both negative and positive, was identified in the formative evaluation as a major factor in shaping perspectives of nursing, weekly self-reported changes in the frequencies of positive and negative self-talk behaviors were selected as major outcome measures. Selection of this variable enabled the application of the time-series, quasi-expermental design (Campbell & Stanley, 1963, pp. 37-43). In addition, pre-test, post-test, and follow-up measurements of other career development outcome variables were planned. However, the inaccesibility of students during the summer precluded additional testing; therefore, the follow-up assessments were not completed. Thus, the data were accumulated within a limited time-series design and a "pre-experimental," one-group pre-test/post-test design (Campbell & Stanley, 1963, pp. 7-12).

Method and Procedures. During the Spring 1981 semester, the two-semester-hour unit of instruction entitled "Multimodal Career Education for Nursing Students" was offered to 17 students who were beginning the nursing program or beginning academic coursework with the expressed intention of entering the nursing program (eight of the 17 students). One of the students who had not been formally admitted to the nursing program withdrew during the first two weeks of class. By the close of the semester, six of the remaining "pre-nursing" students had withdrawn or stopped attending classes. One nursing student left the program. Therefore, the final sample was composed of only nine persons, including one "pre-nursing" sudent, who completed all assessments and instructional components.

Of the 16 students who completed more than two weeks of the course, the average age was 26.38 with a range from 19 to 44 years. Two of the students were Mexican-American (both completing the course) and two were males (both withdrew from the course by the end of the semester). The average age of the nine course completers was 28.75 (range = 20 - 44) while the average age for the attrition group was 24.00 (range = 20 - 30). Although some of the course completers were absent from class on occasion, all students took advantage of opportunities to "make-up" sessions. Therefore, members of this group were exposed to all the course components.

Multimodal career education was presented as an intervention in the following manner. During the Spring 1981 semester, beginning 15 January 1981 and ending 15 May 1981, 15 Mondays were available for the two-hour weekly class meetings. Pre-test assessments were conducted during the first two class meetings and the post-test assessments were completed during the last scheduled class meeting and the two weeks after the close of the semester. Eight of the nine course completers participated in individual debriefing sessions which were offered during June 1981 for the purposes of obtaining some qualitative data, explaining test results, and providing information about the nature of the research project. Since three class meetings were used to collect pre- and post-test data, 12 meetings were actually devoted to multimodal career development activities. Several individual exercises were conducted in class or assigned as homework between sessions.

The multimodal career education assessments, activities, and exercises are described in Table 5.

Table 5

Multimodal Career Education Components

Component	Sessions	Goal
Assessment[a]	2	To secure pre-test data for the research project
Study Skills Training	2	To present instructional activities designed to improve skills in notetaking, studying, and test taking
Multimodal Career Education	1	To present an overview of the multimodal career development model, practice in reviewing cases with the approach, and the assignment of completing the CDQ

(Continued)

Table 5 (Continued)

Component	Sessions	Goal
Sex Stereotyping	1	To present a program exploring the nature and extent of sex bias and sex role stereotyping
Assertiveness Training	3	To present an overview of assertion in nursing, practice in applying assertive behaviors in role-play situations, and some assignments to generalize the skills to natural environments
Problem Solving and Decision Making	1	To present behavioral methods for self-managing change
Stress Management	1	To present an overview of stress and coping and practice in using stress management/tension reduction techniques
Career Planning[c]	2	To present opportunities for role-modeling in career development and understanding career from the social learning perspective
Educational Planning	1	To present information related to continuing education, career ladders, and nursing education
Assessment[d]	1	To secure post-test data for the research project and to conduct debriefing sessions

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[a] The two sessions were used only for data acquisition for the project. In the ideal implementation of multimodal career education the data could be used for "individualizing" instruction and designing career development plans.

[b] The multimodal career education model was presented in class, three case studies were made, and the CDQ was assigned as an individual (homework) exercise. In an actual application of the curricula, the CDQ would be administered at the outset in order to determine instructional needs.

[c] Two guest speakers acted as role models and provided useful career information as well. The social learning model of career (see Mitchell, Jones, & Krumboltz, 1979) was presented to show the linkages between career exploration, decision-making, education, job acquisition, job

maintenance, and career advancement. Students were asked to interview a professional in nursing as a homework assignment or individual exercise.

[d] Additional meetings with students were conducted after the close of the semester to recover data and debrief interested individuals.

The actual content and process of each activity within the various course components are described in detail in the instructional guide (see White pages). The codes of the activities and exercises within the components are provided for reference in Table 6.

Table 6

Activities and Exercises by Component

Course Component	Activity Code	Exercise Code
Study Skills Training	B-1, B-2	t-1
Multimodal Career Education	D-1	d-1
Sex Stereotyping	E/S-1	
Assertiveness Training	I-1, I-2	
Problem Solving and Decision-Making	S-1	
Stress Management	A-1	s-1
Career Planning	T-1	
Educational Planning	S-2	

Other activities and exercises can be used to conduct multimodal career education. Exemplary activities and exercises are included in the Instructional Guide which is contained in this volume.

A variety of outcome measures were taken as pre- and post-tests in order to determine the effects of multimodal career education upon the career development of nursing students. Again, attrition in the nursing program or in the workplace (among program completers) was considered in the overall project; however, attrition was not a variable under study. Nevertheless, attrition during the course of the semester introduced some real constraints upon data gathering and interpreting. The limitations of the study in response to small sample size were discussed elsewhere in this final report.

In order to measure the wide range of potential effects of multimodal career education, a number of standardized and experimental tests were used. The outcome measures are discussed in Table 7.

Table 7

Outcome Measures in the Trial

Pre-Treatment Test	Variable	Post-Treatment Test
Vocational Preference Inventory	Self-Control: Masculinity; Status; Infrequency; Acquiescence and Holland Scales	Vocational Preference Inventory
Rathus Assertiveness Scale	Assertiveness	Rathus Assertiveness Scale
Bem Sex Role Inventory	Masculinity; Femininity; Androgeny	Bem Sex Role Inventory
Attitudes Toward Women	Role Perceptions;	Attitudes Toward Women
Work and Family Orientation Scale	Commitment to Career as measured by Work Orientation, Mastery, Competitiveness, and Personal Unconcern	Work and Family Orientation Scale
Sixteen P-F	Emotional Stability (C); Assertion (E); Seriousness (F); Conscientiousness (G); Self-Reliance (I); Shrewdness (N); Self-Assurance (O); Radicalism (Q_1); Self-Sufficiency (Q_2); Self-Sentiment (Q_3); Composure (Q_4)	Sixteen P-F

Table 7 (Continued)

Pre-Treatment Test	Variable	Post-Treatment Test
Nursing Self-Talk Log	Cognitive Behaviors Moving Toward or Away from Nursing	Nursing Self-Talk Log (Inclu. repeated measures)

NOTE: Quasi-experimental trial of curriculum conducted in Spring 1981 semester

Note that measures of nursing self-talk were repeated during the weeks of the course in order to complete a time-series design. The cumulative effect of exposure to the instructional components was the primary concern.

Due to the very small sample size, which was a function of the "real-life" process of applied research, the data that were gathered were not subjected to inferential statistical analyses. Rather, descriptive statistics for test results are presented as indicators of trends and possibilities for future studies. Therefore, the properties of the various outcome measures have been de-emphasized in the considerations which follow. Instead, the rationale for selecting the variables is discussed by means of reviewing some general research questions.

What are the vocational preferences of pre-nursing students, nursing students, and course completers? According to research associated with the development of the Vocational Preference Inventory or VPI (Holland, 1975) and a related instrument, the Self Directed Search (see Holland, 1978), nurses exhibit occupational scale scores corresponding to a given pattern of personality and a preference for certain situations or work settings. In terms of Holland's (1973) theory of careers, nurses should present scale scores on the VPI which result in summary codes of SAI (especially, practical nursing) or SIA. A general profile of nurses based upon interpretations of the expected scale scores is provided in Table 8.

Table 8

VPI Profile of Nurses

Scale	Descriptive Adjectives	Clinical Interpretation
Social (5)	Sociable, Feminine, Dependent, Enthusiastic, Adventurous, Religious, Conservative, Value social and religious achievement, Helpful, Dominant, Naive, Insightful, Understanding of others, Many social and educational competencies	Have social interests, prefer teaching or therapeutic roles, are responsible, accepting of feminine impulses and roles, and facile and insightful in interpersonal relationships. High scorers have good role playing ability and the ability to relate to others, or the ability to form "close" as apposed to "superficial" relationships.
Artistic (A)	Artistic interests, Introverted, Sensitive, Feminine, Original, Expressive, Value having philosophy of life, Value artistic achievement, Many artistic competencies	Have artistic, musical, and literary interests. Resemble the stereotype of the artist in some ways--may be immature, anxious, sensitive and feminine. Tend to be original, imaginative, complex, unconventional, and introverted.
Intellectual (I)	Scientifically inclined, Shy, High Scientific, research and math ability, Value making contributions to science, Radical, Achieving, Independent	High scorers are concerned with science, mathematics, and theory. Prefer to "think through" problems rather than "act out" problems. Value science and Aesthetic problems. Deprecate social, political, and business activities. Tend to be bright, scholarly, and persistent. Have high educational aspirations.

Note: The information in the tabel is taken from "Interpreting VPI Scores" (Holland, 1975, pp. 10-12). The adjectives and interpretations are made for high scoring females.

Several features of the profile should be addressed. First, some of the descriptions derogate women since femininity is linked with dependency, immaturity, and other "undesirable traits." However, in fairness to Holland, high scoring males are also described as feminine and immature. In addition, other descriptions and interpretations conflict. For example, the conservative values of the Social person do not seem to fit well with the unconventional nature of the Artistic individual or the radical independence of the Intellectual person. However, the interpretation of the summary code reconciles some of the differences.

The nurse in Holland's model exhibits predominantly Social tendencies since this is the highest scale score. Depending upon the relative strengths of the Artistic and Intellectual scores, the secondary characteristics of the "typical nurse" may be more artistic or scientific. It is interesting to note that there is a division of thought in nursing as to whether the profession is more an art or a science. Most reviewers would agree that the profession is primarily expressed through the relationship between the nurse and the patient.

Accepting the assumptions and complexities of Holland's model, persons whose major or summary code on the VPI is SA/I share more behaviors and traits with successful nurses and exhibit greater compatibility with nursing practice settings. Therefore, pre-nursing and nursing students who present this summary code should have the highest probability for satisfaction with traditional nursing practice. One of the marks of adequate career adjustment would be movement toward the summary code. Therefore, the project staff hypothesized that students exposed to multimodal career education would show movement toward expected vocational preferences as measured by increases in Social, Artistic, and Intellectual scale scores when comparing pre- with post-test VPI scores.

Other VPI scale scores should change in response to multimodal career development activities. If the activities and exercises were effective in reducing self-imposed restrictions and inhibitions, then Self-Control Scale scores should decrease from pre- to post-treatment assessments. Similarly, assertiveness training and instruction designed to eliminate sex role stereotyping and to enhance career and educational opportunities should result in increases in Masculinity and Status scale scores.

Two VPI scale scores provide crude measures of adult career maturity. High scores on the Infrequency scale reflect low aspiration level and self-deprecating attitudes (see Holland, 1975, p. 13). Therefore, high scores on the Infrequency scale should decline after exposure to multimodal career education. Extremely high scores on the Acquiescence scale are associated with insufficient personal integration and poor judgement. Decreases in very high pre-test Acquiescence scores, which should dip no lower than the 50th percentile, would suggest greater career maturity in response to multimodal career education. Information about the reliability and validity of the Vocational Preference Inventory is available from the manual (Holland, 1975).

What are the effects of multimodal career education upon assertiveness? Three sessions of the Psychology 1201 course were devoted to assertiveness training due to the centrality of assertion deficits in the dissatisfaction-attrition problem cycle (see "The Problem of Retaining Nurses in the Work-force," (Ivory pages). Introduction of assertiveness training and related components (e.g., sex role stereotyping) should result in gains in assertive behaviors. The Rathus Assertiveness Scale (RAS) is an excellent behavioral measure which is especally well-suited to research with college students (Rathus, 1973; Rathus & Nevid, 1979). If multimodal career education accomplished one of its major aims, course completers should exhibit gains in assertion skills as measured by increases in RAS scores secured at pre- and post-treatment assessments.

What are the effects of multimodal career education upon sex role orientation? While there is some disagreement regarding the bipolarity of the Masculinity-Femininity (M-F) dimension (see Bem, 1977; Sines & Russell, 1978), the Bem Sex-Role Inventory (BSRI) is a highly regarded measurement of psychological androgyny, which, for the purposes of this study, is the possession of both traditionally male and female attributes, traits, and behavioral constancies. Information about the development of the BSRI, its psychometric characteristics, and its administration and scoring is available (Bem, 1977, 1979). If components of multimodal career education were effective in reducing sex bias and sex role stereotyping, then course completers should exhibit psychological androgyny as measured by the BSRI at the post-test. If androgyny is not attained, completers should show increases in Masculinity scores and/or decreases in Femininity scores as measure at pre- and post-treatment assessments.

What are the effects of multimodal career education upon attitudes toward women? Perceptions and attitudes about nontraditional role performance for women are the factors which enable or inhibit sex role orientation. In a sense, a change in attitudes toward women in general is an indicator of readiness to implement new sex-role behavior in one's own life. Therefore, if course completers did not attain androgyny in response to multimodal career education, gains in attitudes toward women which reflect acceptance of nontraditional roles and functions would be desirable. In the present project, change is measured as increases in scores on the Attitudes Toward Women scale (see Spence & Helmreich, 1972).

What are the effects of multimodal career education upon work and family orientation? Closely related to sex role orientation and readiness to pursue nontraditional patterns of living is achievement motivation and commitment to family and career. The questionnaire offers items concerned with achievement motives, educational aspirations, pay, prestige, advancement, attitudes toward spouse employment, relative importance of marriage vs. career, and number of children desired (Helmreich & Spence, 1978, p. 1). Factor analyses of the items yielded four scale scores: Work, desire to work hard; Mastery, desire for intellectual challenge; Competitiveness, desire to succeed in interpersonal situations; and Personal Unconcern, perceived negative interpersonal consequences of achievement or "fear of success." If multimodal career education were effective, then course completers should exhibit increases in Work, Mastery, and Competitiveness scale scores--and decreases in Personal Unconcern Scores--as measured at pre- and post-tests.

What are the effects of multimodal career education upon selected personality factors? It is beyond the scope of the report to discuss the different views regarding the nature of personality measurement, and the impacts of possible persons-by-situations interactions. For purposes of the present investigation, personality is defined as the set of behavioral constancies which tend to be cued across a variety of situations. The _Sixteen Personality Factor Questionnaire_ (_16 PF_) (see Cattell, Eber, & Tatsuoka, 1970) was selected to measure personality tendencies in nursing students. Changes in _16 PF_ scores were interpreted as shifts in tendencies rather than _bona fide_ changes in personality. Therefore, these outcomes measures were used as general research variables, not specific personality change indices.

Form C of the _16 PF_ was used in the study due to its brevity and lower reading level requirements. Only 11 of the factors were evaluated in light of possible career development influences. Factor C, Affected by Feelings vs. Emotionally Stable, was included as a crude measure of assertion to supplement the _RAS_ scores. Factor F, Sober vs. Happy-Go-Lucky, was chosen as a measure of enthusiasm. Factor G, Expedient vs. Conscientious, was included as a variable to check possible adverse effects of training such as rule-breaking. Factor I, Tough-Minded vs. Tender-Minded, was chosen to measure the extent of shifts away from the feminine role toward masculinity or androgyny. Factor N, Forthright vs. Astute, was selected as a measure of "appropriateness" in terms of assertion, an important factor according to the project's advisory committee. Factor O, Self-Assured vs. Apprehensive, was included as a general measure of perceived adequacy and sense of security. Factor Q_1, Conservative vs. Experimenting, was chosen to check possible adverse shifts toward radicalism. Factor Q_2, Group-Dependent vs. Self-Sufficient, was included as a measure of resourceful self-sufficiency. Factor Q_3, Undisciplined Self-Conflict vs. Controlled, was chosen to measure strength of self-sentiment. Factor Q_4, Relaxed vs. Tense, was incorporated as a brief measure of stress and coping.

If multimodal career education influenced career development in desired ways, then the 16 PF scores should shift in expected directions. Anticipated pre- to post-test changes in scores are presented in Table 9.

Table 9

Anticipated Changes in 16 PF Scores

Factor	Change in Scores	Direction
C	Increase	Emotionally Stable
E	Increase	Assertive
F	Increase	Happy-Go-Lucky
G	No Change OK;Decrease Undesirable	Expedient (Adverse)
I	Decrease	Tough-Minded
N	Increase	Astute
O	Decrease	Self-Assured

(Continued)

Table 9 (Continued)

Factor	Change in Scores	Direction
Q_1	No Change OK; Increase Undesirable	Experimenting (Adverse)
Q_2	Increase	Self-Sufficient
Q_3	Increase	Controlled
Q_4	Decrease	Relaxed

What are the effects of multimodal career education upon nursing self-talk behaviors? Within the BEST IDEA model, Self-Talk is a major factor. Self-talk behavior is related to attitude, expectancy, perception, readiness for change, self-sentiment, and a number of other important cognitive behavioral variables. The significance of nursing self-talk has been considered in the position paper and elsewhere in the final report. The "Daily Log" (Nursing Self-Talk Log) and instructions are included in Appendix C. If multimodal career education accomplishes its aims, then weekly frequencies of "Self-Talk Toward Nursing" should increase over the duration of the course and weekly frequencies of "Self-Talk Away from Nursing" should decrease.

The quasi-experimental trial was designed to answer questions about the effects of multimodal career education upon certain aspects of the career development of nursing students. However, the large attrition rate (43.8 percent) during the course resulted in a very small sample of nine women, including eight nursing students and one pre-nursing student. Over the last two years, attrition in Psychology 1201 classes has averaged only 16 percent. Therefore, the significant number of pre-nursing students who failed to complete "Personal Development of Nursing Students" is probably related to the content or process of the course itself. A follow-up was planned to determine possible impacts of multimodal career education upon withdrawal from the course or from school. Nevertheless, the small sample presented adverse conditions for evaluating the curriculum. Thus, only descriptive data were gathered.

Results

Pre-tests were completed by all of the original 17 students. Post-tests were completed by only nine of the students. Much data were gathered during the course of the trial. Each outcome measure is discussed below for the final sample. Means for the pre-test measures are presented for both attrition group members and course completers in Table 10.

Table 10

Pre-test Means for All Students

Outcome Measure	Attrition Group Mean(σ)	Completion Group Mean(σ)
Vocational Preference Inventory:		
Realistic Scale	5.125 (4.285)	2.556 (3.095)
Intellectual Scale	3.625 (2.913)	6.556 (4.879)
Social Scale	9.125 (2.976)	6.333 (4.422)
Conventional Scale	6.250 (4.548)	3.000 (3.590)
Enterprising Scale	5.875 (5.862)	3.556 (3.095)
Artistic Scale	5.750 (3.419)	5.000 (4.472)
Self-Control Scale[a]	11.625 (3.238)	9.111 (2.998)
Masculinity Scale	4.125 (3.951)	6.444 (2.543)
Status Scale	6.625 (2.574)	8.667 (2.708)
Infrequency Scale[b]	7.125 (2.421)	5.889 (2.079)
Acquiescence Scale[b]	10.875 (5.487)	12.333 (5.437)

(Continued)

Table 10 (Continued)

Outcome Measure	Attrition Group Mean(σ)	Completion Group Mean(σ)
Rathus Assertiveness Scale:	-14.625 (15.099)	-1.889 (27.521)
Bem Sex Role Inventory:		
Masculinity	5.169 (0.541)	5.217 (0.359)
Femininity	4.556 (0.682)	4.511 (0.732)
Attitudes Toward Women:	43.750 (9.148)	45.778 (11.573)
Work and Family Orientation:		
Mastery Scale	18.125 (5.395)	20.000 (3.801)
Work Scale	21.500 (2.345)	21.667 (3.682)
Competitiveness Scale	12.625 (2.118)	13.222 (5.452)
Personal Unconcern Scale	12.250 (2.278)	10.444 (2.948)
Sixteen Personality Factor:		
C (Emotionally Stable)	8.000 (1.581)	6.556 (2.587)
E (Assertive)	3.375 (2.058)	4.556 (2.543)
F (Happy-Go-Lucky)	4.500 (2.646)	7.889 (2.025)
G (Expedient)[b]	8.375 (1.495)	9.667 (1.826)
I (Tough-Minded)[a]	3.375 (1.111)	6.556 (2.217)
N (Astute)	4.750 (2.332)	4.000 (2.160)
O (Self-Assured)[a]	3.750 (3.455)	6.222 (2.615)

(Continued)

Table 10 (Continued)

Outcome Measure	Attrition Group Mean (σ)	Completion Group Mean (σ)
Q_1 (Experimenting)[b]	3.500 (1.225)	6.111 (3.281)
Q_2 (Self-Sufficient)	3.750 (2.634)	4.222 (1.699)
Q_3 (Controlled)	9.500 (1.732)	7.556 (2.166)
Q_4 (Relaxed)[b]	6.625 (2.955)	6.333 (2.539)

NOTE: σ represents population standard deviation.

[a] Declines in these scores were hypothesized. The lower the score the better or more representative it is for a given variable.

[b] See text for explanation of these variables.

In Table 10, some striking differences between group means are evident. However, the significance of the differences was not determined because of the small samples. Among the interesting differences were larger Intellectual Scale mean for the completion group than for the attrition group, larger Social Scale and Artistic Scale means for the attrition group than for the completion group. Neither group presented the nursing model code of SA/I at pre-treatment assessment. Rather, the attrition group scored SEC overall, while the completion group scored ISA, a summary code which is, nevertheless, somewhat closer to the nursing type. The great difference between the attrition and completion group Conventional Scale means holds some potential for exploring the retention problem. The psychological scale means also varied with differences ranging from 1.236 (Infrequency Scale) to 2.514 (Self-Control Scale). The scores for the Self-Control and Acquiescence Scales were rather high for both groups.

The results of the pre-test administration of the Rathus Assertiveness Scale revealed additional dissimilarity between attrition and completion groups. Persons who withdrew from the course before its end were somewhat less assertive than the course completers. Other potentially meaningful differences included lower attrition group scores on Factor F (Happy-Go-Lucky) of the *16 PF* and higher completion group scores on Factor I (i.e., Tender-Minded). Scores on Factor G (Expedient) were a bit high for both groups. Means for the *Bem Sex-Role Inventory*, *Attitudes Toward Women*, *Work and Family Orientation*, did not seem to significantly differ.

Some observations regarding dissimilarity were made at the pre-test assessment. While conclusions about the relationships between attrition and test differences cannot be offered, the observations could be used to generate research questions. Are high scores on the Conventional and Enterprising Scales of the *Vocational Preference Inventory* related to withdrawal from a pre-nursing career exploration course? Are higher Intellectual Scale score predictive of successful completion of a multimodal career education course? Can scores on the *Rathus Assertiveness Scale* differentiate between course completers and persons who do not pursue careers in nursing? At another level of conjecture, "Would happy-go-lucky and tender-minded persons express greater interest in nursing career education?" Though the results of these comparisons are quite tentative, the pilot data can generate some worthwhile research questions.

Due to the small sample size of the course completion group, subsequent analyses focused upon individual cases or subject data. Pre-test and post-test scores on each of the outcome measures were examined to address the earlier noted research hypotheses. Changes on the Occupational Scales of the *Vocational Preference Inventory* are presented in Table 11.

Table 11

Occupational Scale (Vocational Preference Inventory) Changes by Subject

	Realistic Scale		Intellectual Scale		Social Scale		Conventional Scale		Enterprising Scale		Artistic Scale	
Subject	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	1(49)	1(49)	13(73)[a]	13(73)[a]	11(58)	10(57)	0(40)	1(48)	3(48)	1(41)	7(54)	5(50)
2	0(41)	1(49)	2(48)	1(43)	7(50)[a]	4(44)	6(59)	4(55)[a]	5(52)	3(47)	0(36)	0(36)
3	7(67)	4(58)	14(77)[a]	12(67)[a]	7(50)	11(63)[b]	1(48)	0(40)	4(50)	7(57)	13(64)	6(44)
4[c]	0(41)	0(41)	1(43)	1(43)	0(30)	1(37)[b]	1(48)[a]	1(48)[a]	0(34)	0(34)	0(36)	0(36)
5	1(49)	0(41)	8(60)	0(37)	14(69)[a]	4(44)[a]	3(53)	0(40)	8(57)	0(34)	7(54)	1(43)
6	3(42)	8(68)	3(52)	1(43)	9(54)	10(57)[b]	12(67)[a]	12(67)[a]	9(60)	11(64)	1(43)	4(48)[b]
7	2(54)	2(54)	6(57)[a]	4(53)	6(48)	6(48)	1(48)	0(40)	1(41)	6(54)[a]	6(44)	3(46)
8	9(70)	12(77)	11(66)[a]	14(77)[a,b]	2(40)	10(57)[b]	2(50)	4(55)	2(44)	6(54)	10(58)	14(70)[b]
9[c]	0(41)	1(49)	1(43)	3(52)[b]	1(37)	4(44)[b]	1(48)[a]	2(50)	0(34)	0(34)	1(43)	5(50)[a,b]

Note: In the format X(Y), the "X" represents the raw score and the "Y" represents the standard score.

[a] This score is the highest among the scales at pre- and post-tests. When there are ties among the raw scores the standard scores are reviewed.
[b] The change is correct given the direction specified in the research hypothesis.
[c] The scores of this case characterize a low response set.

Examination of changes in Occupational Scale scores addressed the question of whether or not exposure to multimodal career education resulted in movement toward the summary code of SA/I. Increases in scale scores from pre-test to post-test can be interpreted as movement toward the model. The data from Table 11 reveal that five of nine subjects moved toward the Social Scale major, three subjects showed increases in the Artistic Scale, and two subjects demonstrated the gains in the Intellectual Scale.

Among the six scales, highest scores were tabulated for each subject. At pre-test, there were no highest scores for the Realistic Scale, four scores for the Intellectual Scale, two for the Social Scale, three for the Conventional Scale, none for the Enterprising Scale, and none for the Artistic Scale. At post-test, there were no highest scores for the Realistic Scale, three scores for the Intellectual Scale, one for the Social Scale, three for the Conventional Scale, one for the Enterprising Scale, and one for the Artistic Scale. Overall, while there was some movement toward the desired Social, Intellectual, and Artistic Scales, gains over pre-test scores were not very impressive. Two of the students (Subjects 4 and 9) produced low response sets on the occupational scales, raising questions of career and personal adjustment. These were explored in greater depth via the data from other outcome measures.

The "personality scales" of the Vocational Preference Inventory provided additional information regarding the effects of multimodal career education. Pre- to post-test changes are reflected in Table 12.

Table 12

Personality Scale (Vocational Preference Invnetory) Changes by Subject

	Self-Control Scale		Masculinity Scale		Status Scale		Infrequency Scale		Acquiescence Scale	
Subject	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	9(45)	10(47)	9(65)	10(69)[a]	9(52)	10(55)[a]	4(46)	7(55)	16(60)	11(49)
2	6(39)	10(47)	7(57)	8(61)[a]	2(30)	4(33)[a]	5(48)	7(55)	8(43)	5(36)
3	5(38)	6(39)	8(61)	8(61)	12(63)	11(59)	5(48)	4(46)	18(64)	15(57)
4	14(64)	14(64)	8(61)	8(61)	9(52)	8(47)	9(62)	6(53)[c]	3(33)	4(35)
5	8(43)	12(54)	5(47)	7(57)[a]	10(55)	10(55)	5(48)	3(42)	20(67)[d]	9(45)
6	12(54)	12(54)	1(32)	1(32)	9(52)	4(33)	5(48)	5(48)	12(52)	14(56)
7	7(41)	8(43)	5(47)	7(57)[a]	11(59)	9(52)	3(42)	3(42)	17(63)	14(56)
8	8(43)	2(33)[b]	9(65)	5(47)	9(52)	10(55)[a]	8(57)	8(57)	10(47)	20(67)
9	13(57)	13(57)	5(47)	9(65)[a]	7(45)	8(47)[a]	9(62)	7(55)[c]	7(42)	11(49)

Note: In the format X(Y), the "X" represents the raw score and the "Y" represents the standard score.

a Increases from pre- to post-test scores support research hypothesis.
b Decreases from pre- to post-test scores support research hypothesis.
c Decreases from high (60+ standard) pre-test scores support research hypothesis.
d There were no very high (70+ standard) pre-test scores. However, the observed decrease is favorable.

The data contained in Table 12 support some of the research hypotheses. Five of the nine subjects scored higher on the Masculinity Scale after exposure to multimodal career development activities. In the cases of three subjects, no change in Masculinity Scale scores were observed and, only in a single case, was a decline noted. All but one of the subjects scored highly on this scale at pre- and post-test assessments. Therefore, the course completers tended to either hold high levels of masculinity as measured by the Vocational Preference Inventory or to exhibit more active, shrewd, sex-equitable characteristics. Changes in the Status Scale scores were also promising.

Four of nine course completers showed expected increases in Status Scale scores, one subject did not change, and two subjects showed minor declines in rather high initial scores. Therefore, the data suggested that the subjects were somewhat more enthusiastic, sociable, dominant, expressive, and goal-oriented after completion of training. As a group, the scores may be interpreted as an expectation of status or prestige in career choice, a good outcome for multimodal career education.

Scores on the Infrequency Scale in Table 12 were moderate as desired. Two persons who scored highly shifted toward more moderate standard scores as anticipated by the research hypothesis. The subjects, who were the same ones who exhibited a low response set on the occupational scales, could be characterized at the pre-test as dependent, self-deprecating, and uncertain. By the post-test they showed greater personal and vocational adjustment. On the Acquiescence Scale, no subjects scored sufficiently high to be characterized as poor in judgement or low in personal integration. However an observed decrease in one rather high score suggested that the subject possessed greater career maturity and self-confidence after completing multimodal career education.

As noted in the rationale for emphasizing assertiveness in the course, gains in assertion skills are among the most important desired outcomes. Changes in Rathus Assertiveness Scale (RAS) scores are noted in Table 13.

Table 13

Changes in Rathus Assertiveness Scale Scores by Subjects

Subject	Pre-Test Score (Percentile)	Post-Test Score (Percentile)
1*	-7 (26.25)	-3 (31.25)
2*	-37 (3.80)	-32 (7.00)
3	+32 (85.83)	+29 (83.00)
4*	-20 (12.86)	+12 (56.67)
5*	+34 (87.50)	+43 (93.75)
6*	-21 (12.14)	-10 (23.00)
7*	+5 (43.75)	+11 (55.00)
8	+33 (86.67)	+25 (78.33)
9*	-36 (4.20)	-28 (8.00)

*Subject scores changed in the direction specified by the research hypothesis.

Seven of the nine students improved in terms of post-test assertiveness scores. The remaining two subjects were the highest scorers on the scale and showed only slight decreases at post-test. On Factor E of the 16 PF, four of the students, including one who did not register an increase on the RAS, exhibited gains in assertiveness. The 16 PF is probably not as good a behavioral indicator of assertiveness as the RAS. Overall, the results were encouraging. The relationship between multimodal career education and assertiveness demands additional attention.

Increases in Masculinity Scale scores on the Vocational Preference

Inventory (see Table 12) suggested changes would occur in Bem Sex-Role Inventory scores. Table 14 summarized the changes.

Table 14

Changes in Bem Sex-Role Inventory Scores by Subject

Subject	Femininity Score Changes	Masculinity Score Changes
1	-0.50	+0.15
2	+0.40	+0.30
3	+0.80	+0.10
4	-0.15	+0.65
5	-0.40	-0.40
6	-0.05	+0.10
7	-0.25	+0.15
8	+0.75	-0.25
9	0.00	+0.80

Note: Changes are reflected as net raw scores after subtracting pre- from post-test scores.

Seven of the nine subjects demonstrated gains in masculinity as measured by the BSRI. These data confirmed that some meaningful increases in masculinity had occured during the course. The optimism of the project staff was supported by observed frequencies of BSRI classifications which are depicted in Table 15.

Table 15

Frequencies of Bem Sex-Role Inventory Classification

Pre-Test

Femininity Score:	Masculinity Score: Below Median	Masculinity Score: Above Median
Below Median	2 [a]	[b] 0
Above Median	4 [c]	[d] 3

Post-Test

Femininity Score:	Masculinity Score: Below Median	Masculinity Score: Above Median
Below Median	1 [a]	[b] 0
Above Median	4 [c]	[d] 4

Note: The Median for the Masculinity Score is 4.95 while the Median for the Femininity Score is 4.90.

[a] Frequencies in this cell are classified "Undifferentiated."

[b] Frequencies in this cell are classified "Masculine."

[c] Frequencies in this cell are classified "Feminine."

[d] Frequencies in this cell are classified "Androgynous."

The data in Table 15 reflected an increase in the frequency of "androgynous" subjects. From pre-test to post-test assessments, three feminine students retained their classifications, one feminine student shifted to the androgynous classification, one undifferentiated student shifted to the feminine classification, and one undifferentiated student remained unchanged.

Therefore, three androgynous subjects retained or increased this sex-role orientation while one person changed sufficiently to be classified as androgynous rather than feminine. The shift from "undifferentiated" to "feminine" can also be viewed as beneficial since the former classification is less adaptive and functional that the latter. One of the subjects who exhibited a low response set on the VPI, as well as high Infrequency Scale scores, remained undifferentiated at post-test, but showed some desired moving toward greater masculinity. The three subjects who retained their feminine classifications manifested declines in femininity and increases in masculinity, hence, movement toward masculinity or androgyny. Thus, the results with the Bem Sex-Role Inventory in dicated that beneficial change in sex role orientation is a probable outcome of multimodal career education.

Attitudes Toward Women Scale (ATS) scores are included in Table 16.

Table 16

Changes in Attitudes Toward Women Scale Scores by Subject

Subject	Pre-Test Score (Decile)	Post-Test Scores (Decile)
1*	64 (90)	70(>90)
2	50 (50)	36 (10)
3*	61 (80)	71(>90)
4*	42 (30)	75(>90)
5*	51 (50)	69(>90)
6	28(<10)	27(<10)
7*	44 (30)	57 (70)
8	42 (30)	41 (20)
9*	30(<10)	34 (10)

Note: Decile scores are rounded.

*Changes represent directions noted in research hypothesis.

Six of the nine subjects exhibited increases in ATS scores while two subjects showed only slight declines. The range in scores was tremendous, from 30 (<10 decile) to 75 (>90 decile), therefore, some of the women possessed perceptions and attitudes which enabled pursuit of new sex-roles, while other subjects were rather traditional and restrictive in their views about women. Shifts toward more nontraditional attitudes in six of the course completers were promising.

Changes in orientation to work, family, and career were mixed. The pre- and post-test scores for the Work and Family Orientation scale are presented in Table 17.

Table 17

Changes in Work and Family Orientation Scores by Subject

Subject/Test		Mastery	Work	Competiveness	Personal Unconcern
1:	Pre	26(94)	24(100)	8(20)	10(50)
	Post	28(97)*	24(100)	10(30)*	2(0)
2:	Pre	20(70)	24(100)	17(90)	5(9)
	Post	10(10)	18(20)	13(60)	8(30)
3:	Pre	18(50)	21(60)	5(7)	14(93)
	Post	24(92)*	24(100)*	5(7)	16(100)
4:	Pre	21(80)	24(100)	10(30)	9(40)
	Post	19(60)	24(100)	5(7)	11(65)
5:	Pre	27(96)	24(100)	17(90)	14(93)
	Post	20(70)	18(20)	12(50)	9(40)
6:	Pre	18(50)	12(6)	20(100)	10(50)
	Post	16(35)	23(90)*	12(50)	6(10)*
7:	Pre	16(35)	23(90)	15(80)	12(80)
	Post	11(10)	21(60)	10(30)	8(30)*
8.	Pre	16(35)	23(90)	16(85)	12(90)
	Post	22(85)*	22(75)	15(80)	20(80)*

(Continued)

Table 17 (Continued)

Subject/Test	Mastery	Work	Competiveness	Personal Unconcern
9: Pre	18(50)	20(45)	8(20)	7(20)
Post	20(70)*	23(90)*	12(50)*	10(50)

Note: Percentiles are based upon data taken from standardization sample of female college students.

*These changes reflect directions anticipated by the research hypotheses.

Four of the course completers scored higher on the Mastery factor at the post-test than the pre-test. Three of the subjects changed in the anticipated direction for the Work factor. Only two persons shifted toward greater Competitiveness, while five persons evidenced reduced "fear of succus" by scoring lower on the Personal Unconcern scale. Generally, students were concerned with exhibiting greater mastery and competency at the post-test, although one student's scores on the Mastery factor dropped from the 70th to the 10th percentile. Three subjects showed large increases on the Work factor, two remained unchanged--having scores at the pre- and post-tests at the 100th percentile, and four subjects showed very large decreases. Therefore, some subjects valued hard work much more after completing the course while other subjects seemed to lose interest in work.

Scores on the Competiveness factor from Table 17 revealed mostly declines from pre- to post-test. Only two students registered increases in scores measuring competitive orientation. Multimodal career education appeared to have negative effects upon nursing students' attitudes regarding competition. Finally, five of the nine students scored lower on the Personal Unconcern scale post-test than the pre-test. This trend reflected the direction of the research hypothesis. Changes in Personal Unconcern scores suggested that several students lost the "fear of success" after being exposed to multimodal career education. Increases in Personal Unconcern scores among individual subjects were generally small; however, one student (Subject 3) scored at the 100th percentile, a distressing figure.

The final group of outcome measures that were subjected to pre- and post-test analyses were selected factors from the Sixteen Personality Factor (16 PF) test. Since the test was used for research purposes, rather than to assess personality, pre- to post-test difference scores were computed. The differences are reported in terms of raw rather than standard socres. In order for 16 PF scores to have clinical meaning, changes must be interpreted with respect to shifts in standard scores given the subjects' ages and educations. The difference scores are reported in Table 18.

Table 18

Selected 16 PF Difference Scores by Subject

Subject Factors:	C	E	F	G	I	N	O	Q_1	Q_2	Q_3	Q_4
1	+3*	-2	+2*	+4	+2	+1*	-1*	-2	-2	+2*	0
2	-1	-3	+2*	+2	+3	-2	-1*	-3	0	-5	+1
3	-2	+1*	-1	0	-1*	+4*	0	0	+2*	0	+2
4	+2*	0	-2	-4**	-6	0	0	+2**	0	+3*	+4
5	-3	+2*	+2*	-4**	-1*	0	+2	0	+6*	0	+2
6	-8	-1	-2	-4**	+2	+1*	-3*	0	+3*	0	+3
7	-4	+3*	-1	0	+1	-2	+3	+3**	0	0	0
8	-4	-4	-1	+2	+1	+1*	+3	0	+2*	0	+1
9	0	+2*	+1*	0	-1*	+2*	-1*	+3**	+3*	+1*	+1

Note: Difference scores are completed by subtracting the pre-test from the post-test raw scores (D = Post-Pre).

*These changes were in the directions anticipated by the research hypotheses.

**These changes are undesirable according to the rationales for including the "check factors."

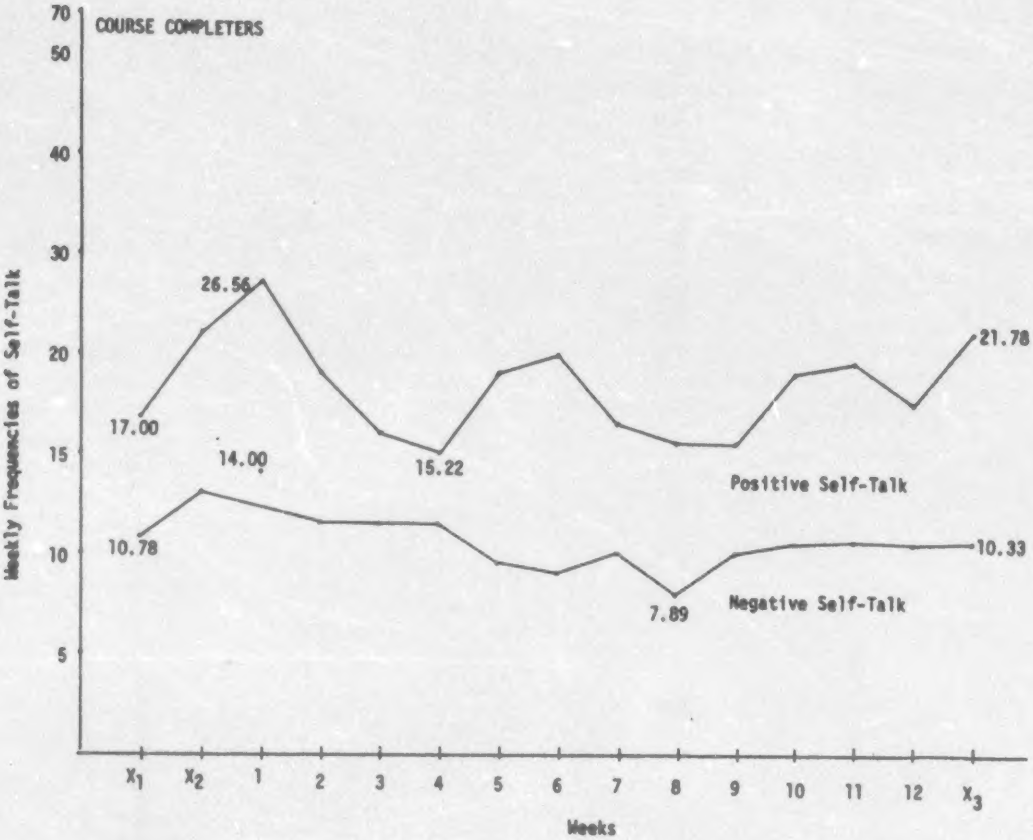
The factors from the 16 PF which were used as outcome measures represent many areas of functioning which are important in career adjustment. In Table 18, it is apparent that changes in scores both moved away and toward the desired adjectives which were specified in the research hypotheses. Major positive effects were observed for factors E, F, N, O, and Q_2. Negative effects were noted for Factors G and Q_1.

After completing multimodal career education, only two persons scored higher ("improved") on emotional stability, reality orientation, and maturity (Factor C). Only two students moved from more tender-minded to more tough-minded, realistic characteristics (Factor I). In light of observed pre-test differences (see Table 10) between the attrition and control groups, perhaps successful nursing students are more tender-minded. Three persons moved toward greater self-sufficiency (Factor Q_3) after completing training. No students showed reduction in stress or tension (Factor Q_4), although stress management training was included in the multimodal career education curriculum.

Increases in Factor E (Assertive) scores were discussed with Rathus Assertiveness Scale scores, as evidence of gains in assertion skils. Increases in Factor F (Happy-Go-Lucky) scores further substantiated the importance of enthusiasm in nursing student success (see also Table 10). Five students increased their scores on Factor N (Astute), thus, suggesting that nursing students can learn "appropriateness" in terms of assertion, as well as, related social skills. On Factor O (Self-Assured vs. Apprehensive), the scores of four students decreased in accordance with the research hypothesis. Therefore, the students evidenced greater security and self-assurance after the training. One of the more dramatic outcomes was the observation of five cases of improvement and only one decline on Factor Q_2 (Self-Sufficient). However, three undesirable changes toward greater expediency (Factor G) and radicalism (Factor Q_1) accompanied the observed tendency toward self-sufficiency.

Changes in frequencies of positive and negative self-talk were assessed at pre- and post-tests. The assumption made in using the Nursing Self-Talk Logs was that positive talk shapes cognitive behavior (e.g., attitudes) toward nursing while negative talk shapes behavior away from nursing. If multimodal career education were effective, then increases in positive self-talk and decreases in negative self-talk should be observed at the end of the course. However, there was great individial variation in the reporting of frequencies.

Subjects were provided with detailed instructions and examples during the first two class meetings, the pre-test assessment period which amounted to a baseline for this time-series measurement. The students were given packets with seven daily logs for completion and return at the next class meeting. Daily frequencies of self-talk were summed weekly to determine the descriptive data which were used to construct figures. The mean weekly frequencies for the entire group of course completers are presented in Figure 1.



From the data points in Figure 1, it is apparent that positive self-talk increased during the course at a variable rate while negative self-talk declined slightly at a more steady rate. Maximum frequencies of both positive and negative self-talk occured after the first week of instruction. The minimum weekly frequency for positive self-talk occurred for the group after the fourth week and for negative self-talk after the eighth week. Group means and population standard deviations, as well as counts of minimum and maximum points by week, are contained in Table 19.

Table 19

Group Means, Standard Deviations, Minimum and Maximum Frequencies, by Week

Week	Mean (SD): Positive Talk	Mean (SD): Negative Talk	Minimum Frequency Positive	Minimum Frequency Negative[a]	Maximum Frequency Positive	Maximum Frequency Negative[a]
X_1^b	17.00(16.94)	10.78(13.18)	7	2	2	1
X_2^b	22.44(18.55)	13.00(10.05)		2	2	2
1	26.56(24.72)	14.00(14.88)		1	3	2
2	18.78(13.95)	11.89(12.56)		1	1	1
3	16.11(13.14)	11.78(16.35)	1	2		1
4	15.22 (9.62)	11.22(10.93)		2		1
5	19.00(15.15)	9.56(11.84)		3		
6	19.67(15.87)	9.00(10.82)				
7	16.33 (9.10)	9.89(11.45)	1			
8	15.67 (8.74)	7.89 (5.24)		1		
9	15.44 (8.43)	10.00(11.34)		1		
10	18.89(15.61)	10.33(12.25)		1	1	
11	19.33(10.70)	10.56(13.89)		2	1	
12	17.44(10.35)	10.22(12.64)		1		
X_3^c	21.78(18.68)	10.33(11.47)	2	2		1
$\bar{X}^d$	18.64	10.70				

NOTE: The counts for minimum and maximum, positive and negative frequencies are presented by week. Minimum positive and maximum negative frequencies are undesirable during the weeks of training (1-12) while maximum positive and minimum negatives are good indicators.

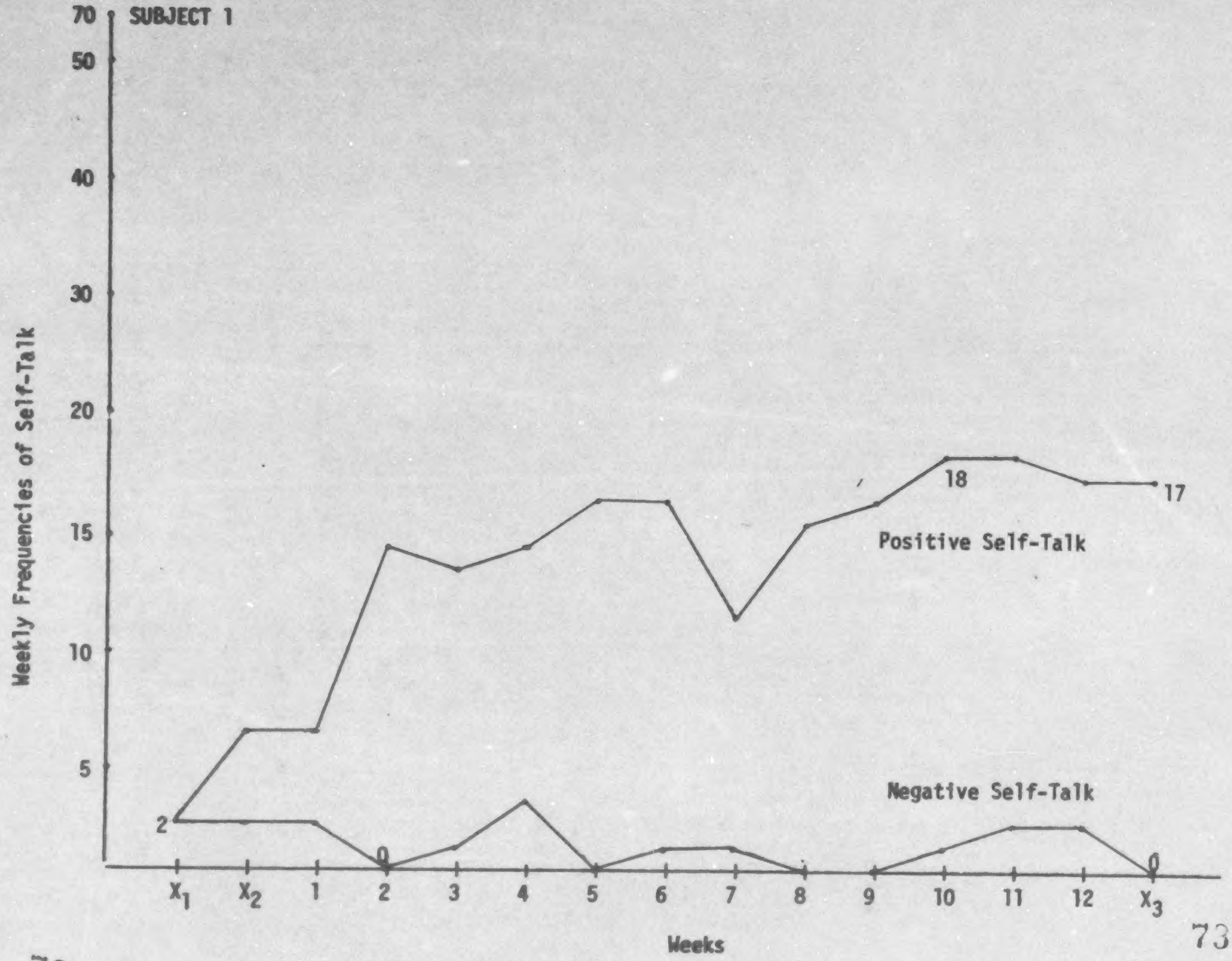
[a] The frequencies total more than nine in some categories due to ties.

[d] These weeks were devoted to pre-test or baseline assessment.

[c] This week was one of the post-treatment assessment periods.

[d] The means for positive and negative self-talk over the duration of the course were derived by taking the average of weekly means.

In general, the trends in Figure 1 and Table 19 indicated that multimodal career development activities contributed to increases in positive self-talk and decreases in negative self-talk as the course progressed. Changes in the weekly frequencies for each individual can be intensively reviewed for additional data regarding the effects of training. Figures which display the weekly frequencies of positive and negative self-talk are presented for all subjects on the following pages.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Weekly Frequencies of Self-Talk
70
50
40
30
20
15
10
5
18
17
Positive Self-Talk
Negative Self-Talk
2
0
0
X₁
X₂
1
2
3
4
5
6
7
8
9
10
11
12
X₃
Weeks

Figure 2

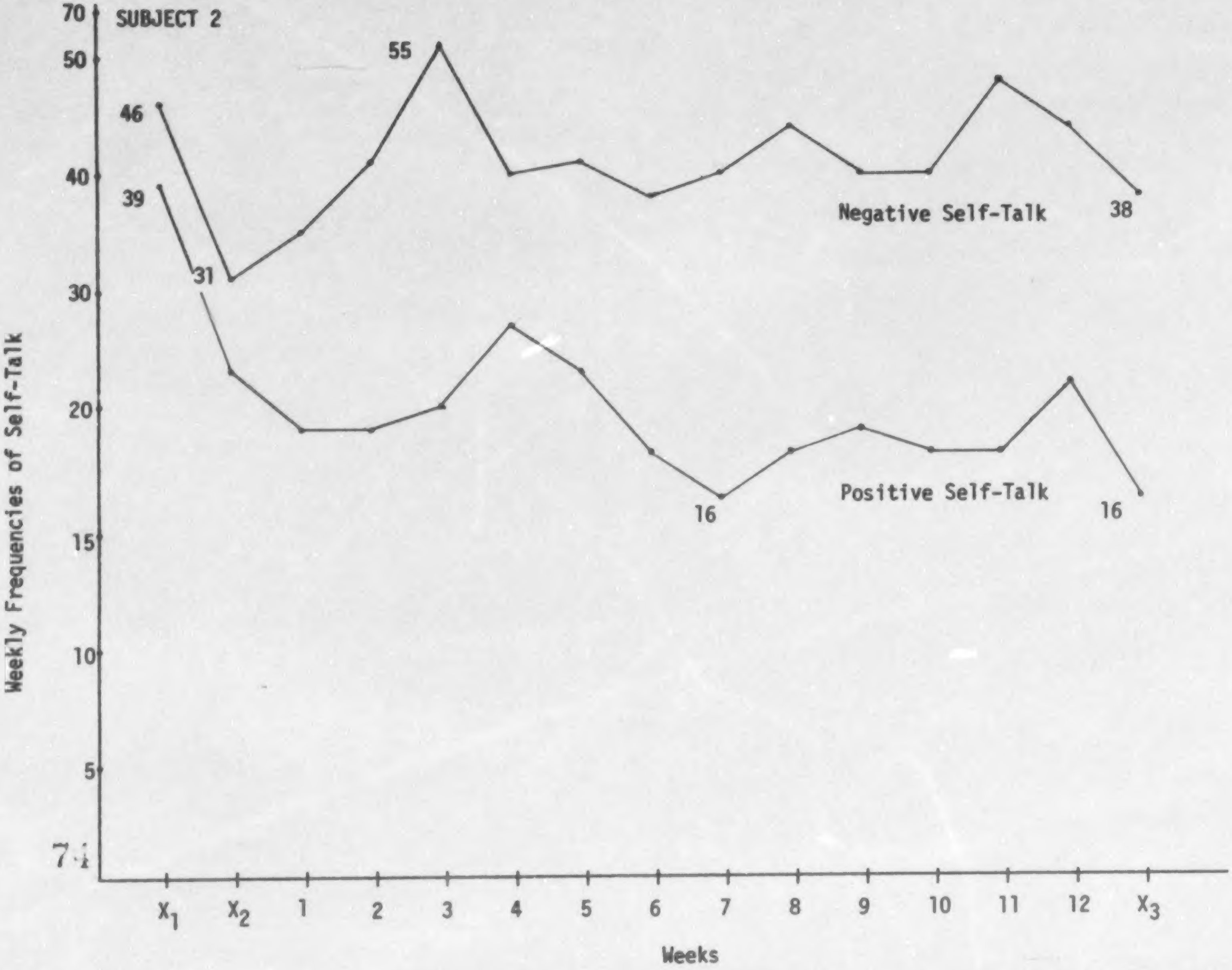
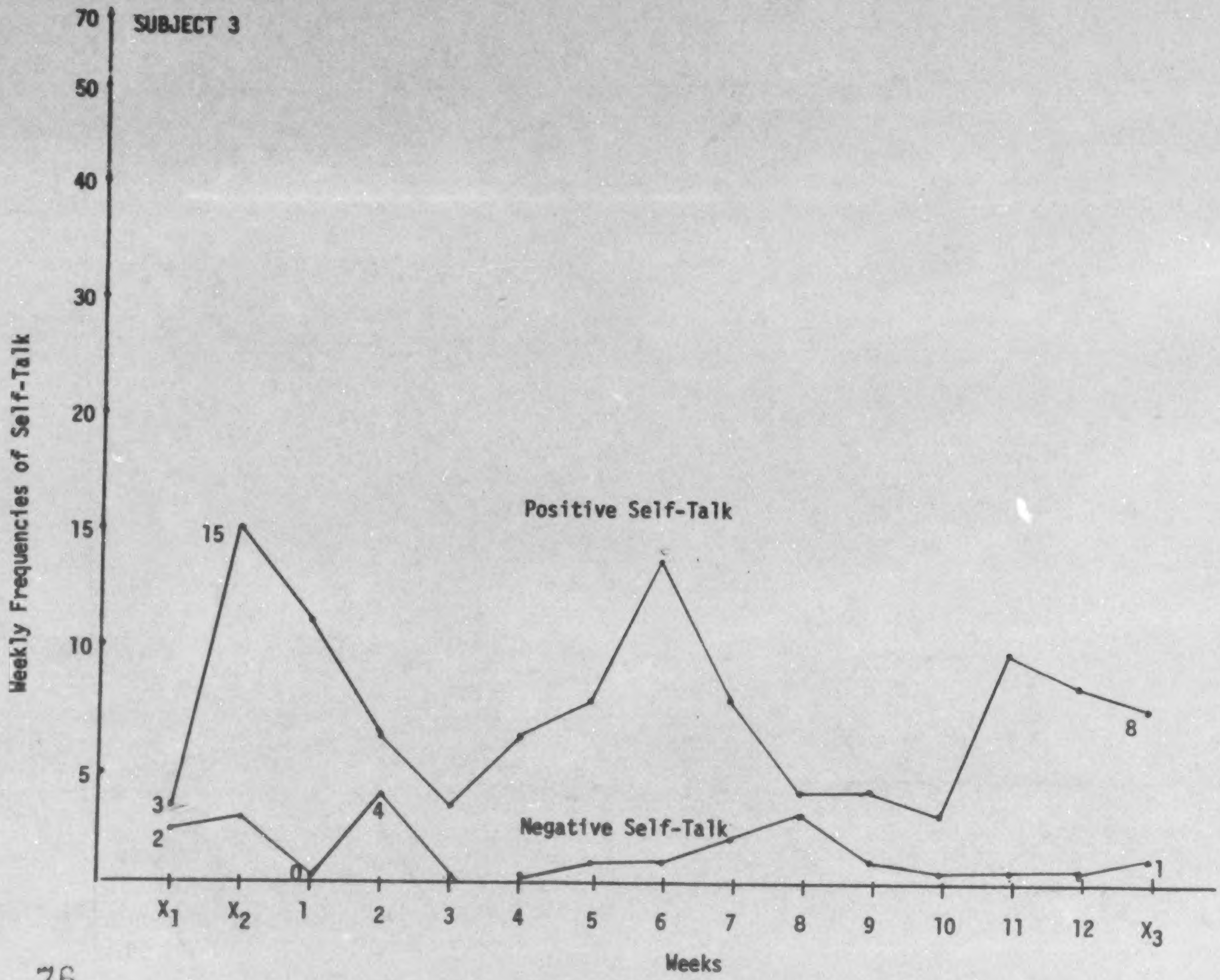

SUBJECT 2
Weekly Frequencies of Self-Talk
70
50
40
30
20
15
10
5
55
46
39
31
38
16
16
Negative Self-Talk
Positive Self-Talk
X1
X2
1
2
3
4
5
6
7
8
9
10
11
12
X3
Weeks

Figure 3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50
40
30
20
15
10
5
Weekly Frequencies of Self-Talk
Positive Self-Talk
Negative Self-Talk
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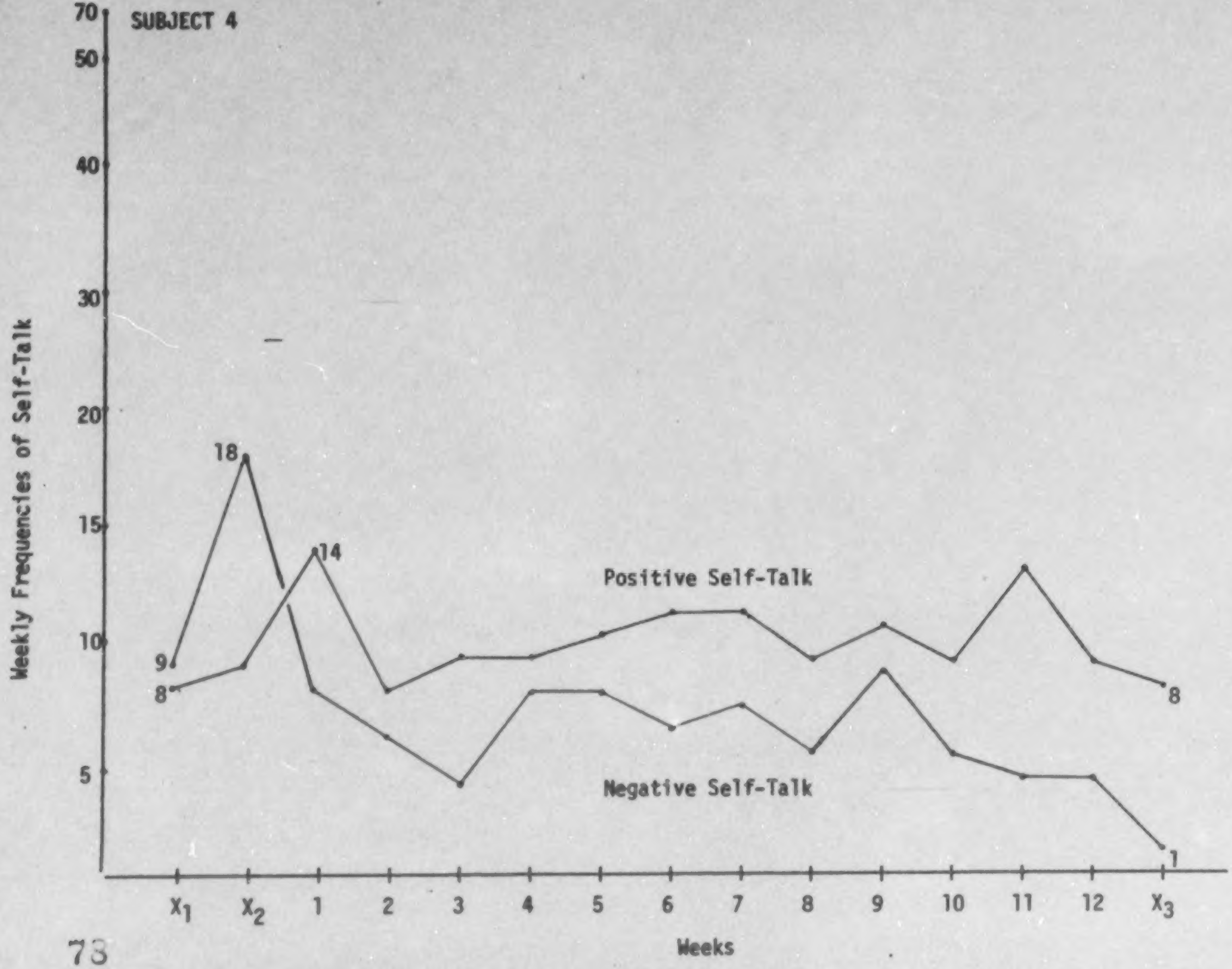
3
2
0
4
8
1
X1
X2
1
2
3
4
5
6
7
8
9
10
11
12
X3
Weeks

Figure 4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Weekly Frequencies of Self-Talk
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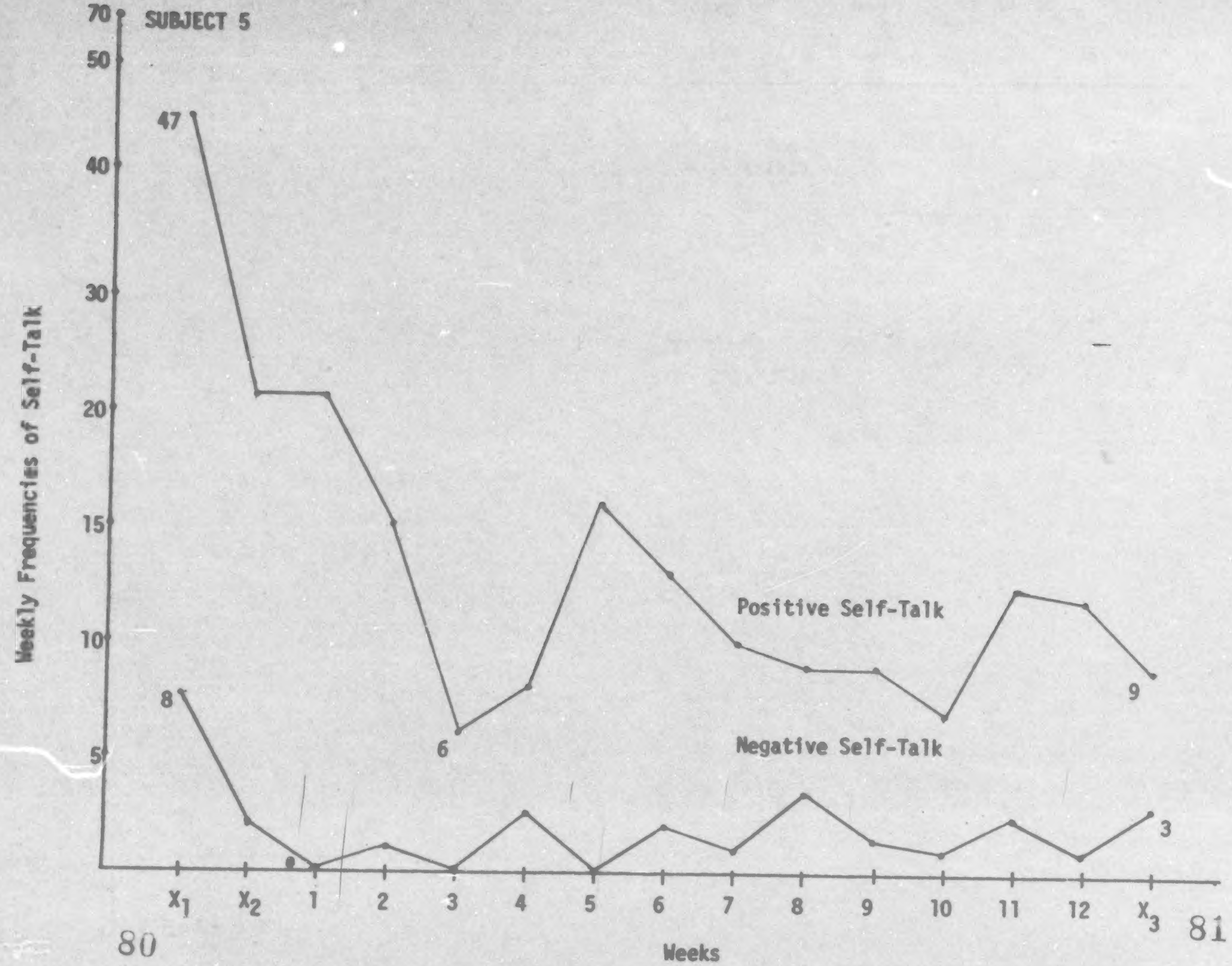
40
30
20
15
10
5
18
14
9
8
8
1
Positive Self-Talk
Negative Self-Talk
X1
X2
1
2
3
4
5
6
7
8
9
10
11
12
X3
Weeks

Figure 5


SUBJECT 5
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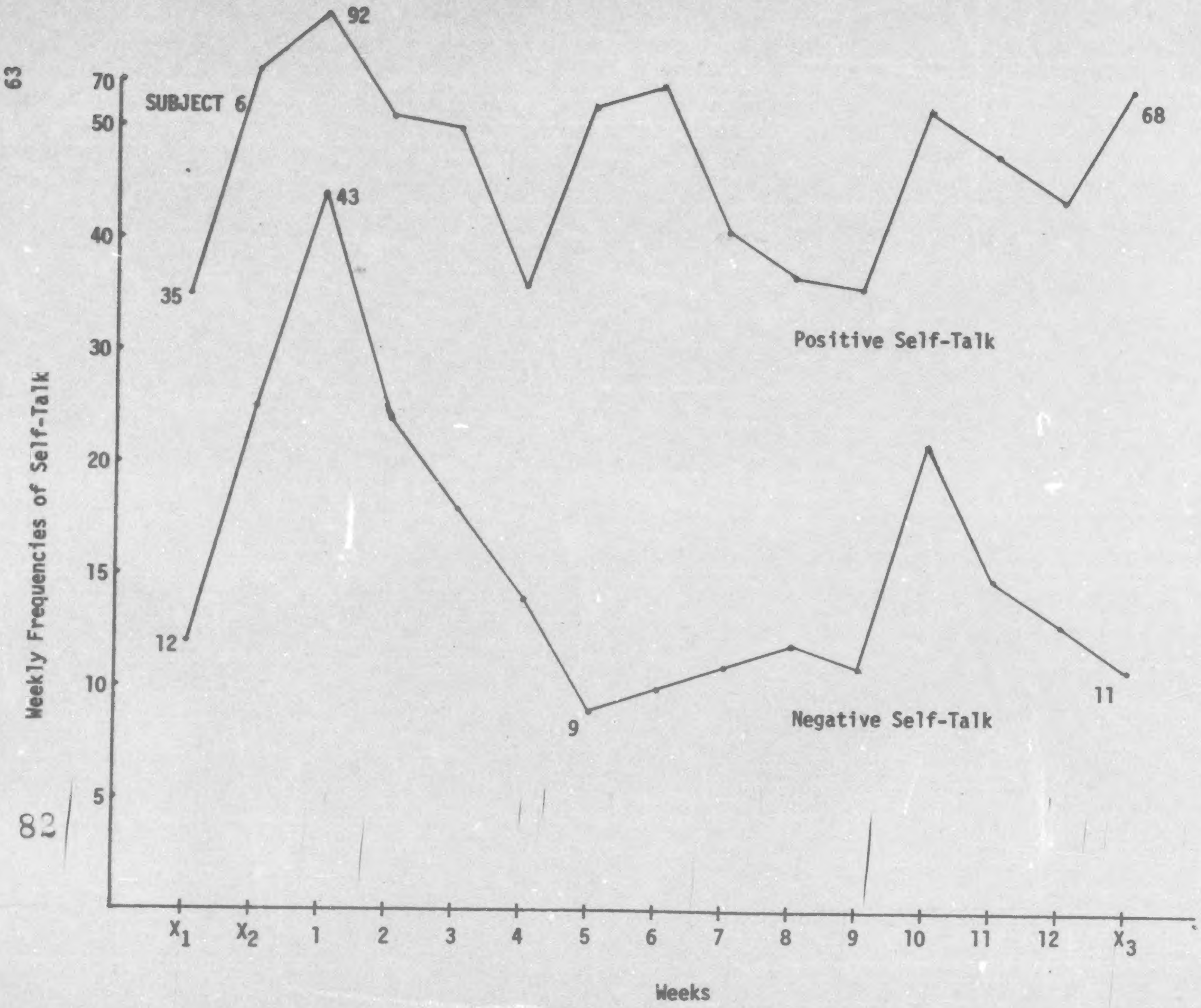
50
47
40
30
20
15
10
8
6
5
9
3
Weekly Frequencies of Self-Talk
Positive Self-Talk
Negative Self-Talk
X1
X2
1
2
3
4
5
6
7
8
9
10
11
12
X3
Weeks

Figure 6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Weekly Frequencies of Self-Talk
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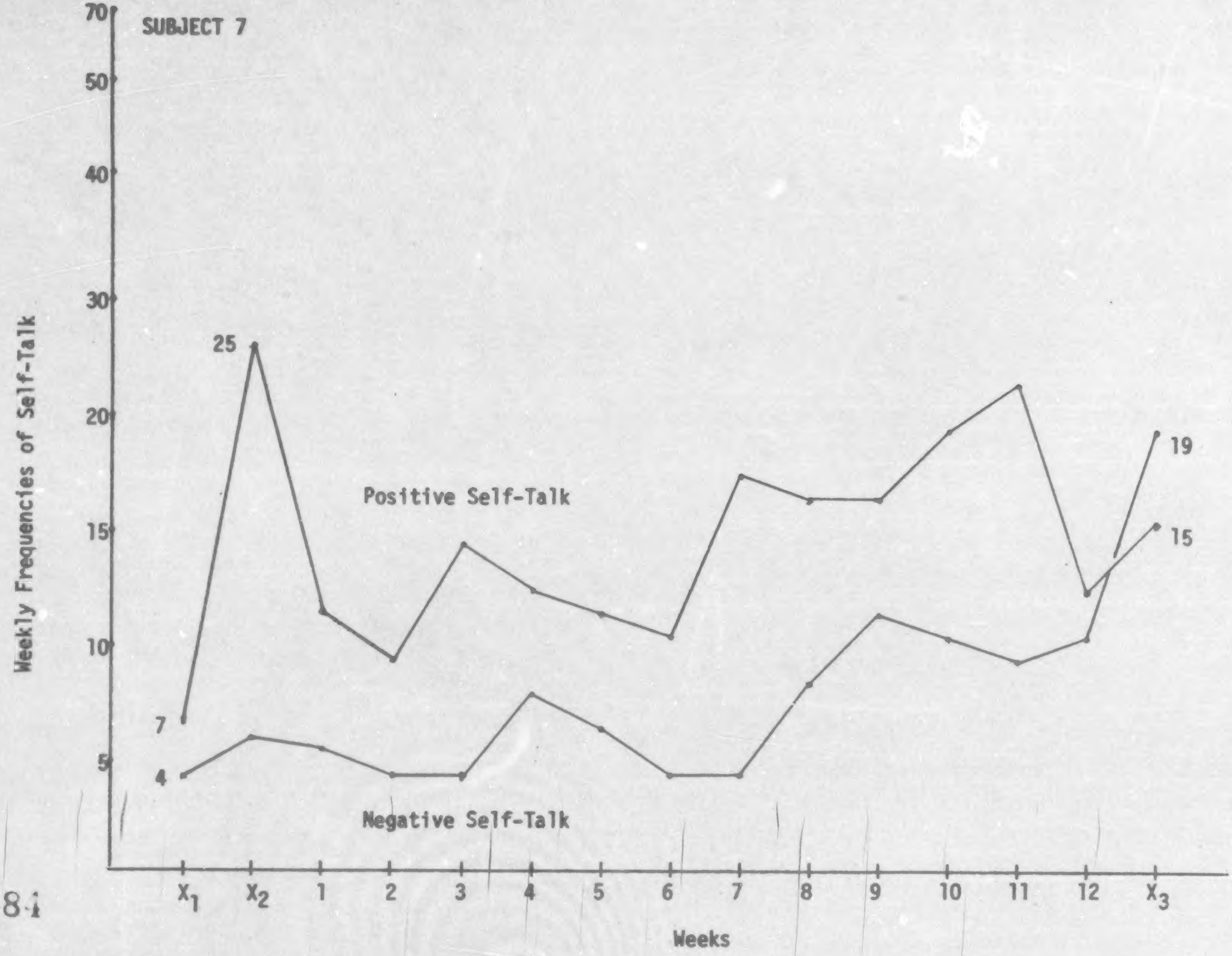
50
40
30
20
15
10
5
92
68
35
43
12
9
11
Positive Self-Talk
Negative Self-Talk
X1
X2
1
2
3
4
5
6
7
8
9
10
11
12
X3
Weeks

Figure 7


SUBJECT 7
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20
15
10
5
Weekly Frequencies of Self-Talk
25
7
4
19
15
Positive Self-Talk
Negative Self-Talk
X_1
X_2
1
2
3
4
5
6
7
8
9
10
11
12
X_3
Weeks

Figure 8

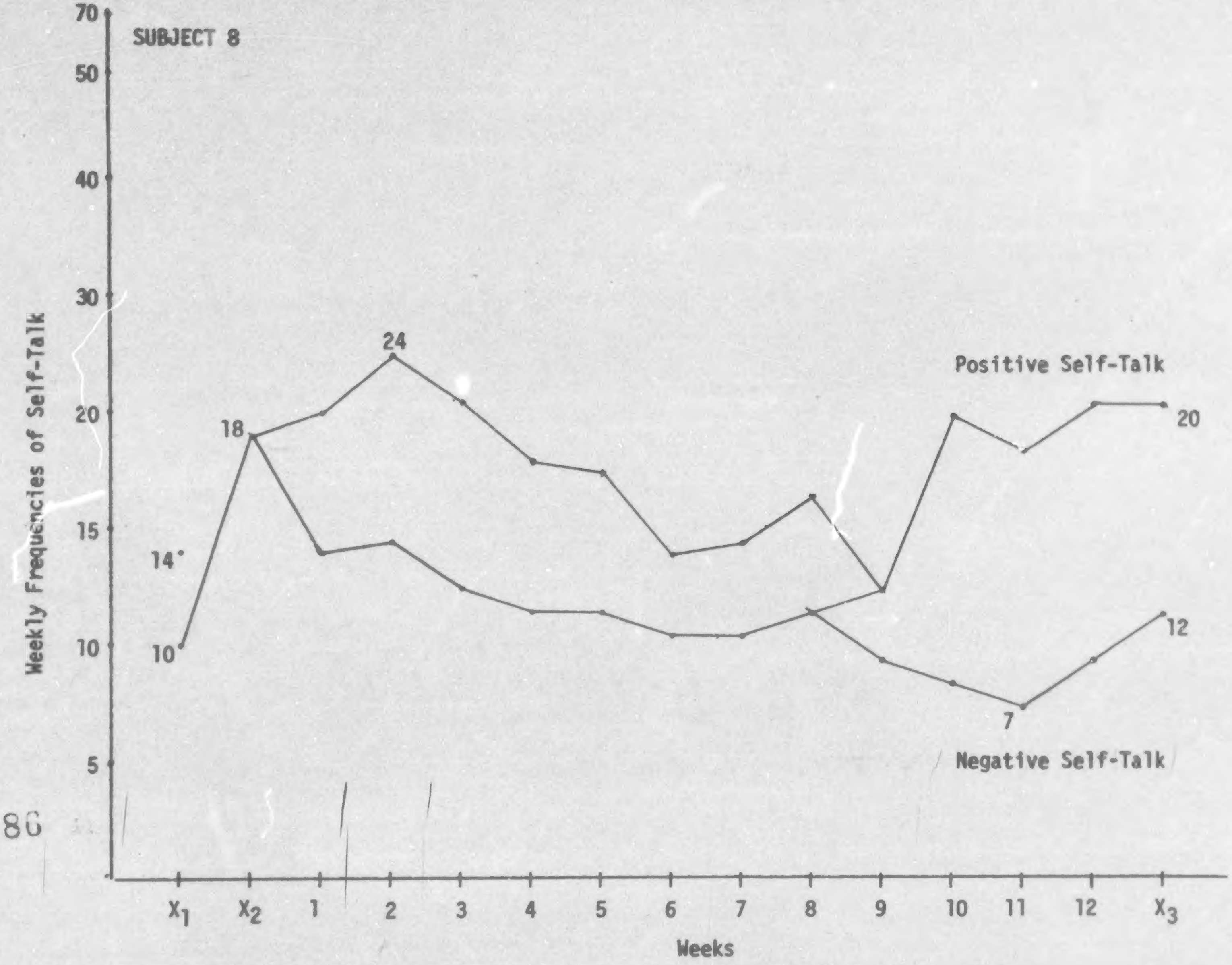
SUBJECT 8
70
50
40
30
20
15
10
5
Weekly Frequencies of Self-Talk
24
18
14
10
Positive Self-Talk
20
12
7
Negative Self-Talk
X$_1$
X$_2$
1
2
3
4
5
6
7
8
9
10
11
12
X$_3$
Weeks

Figure 9

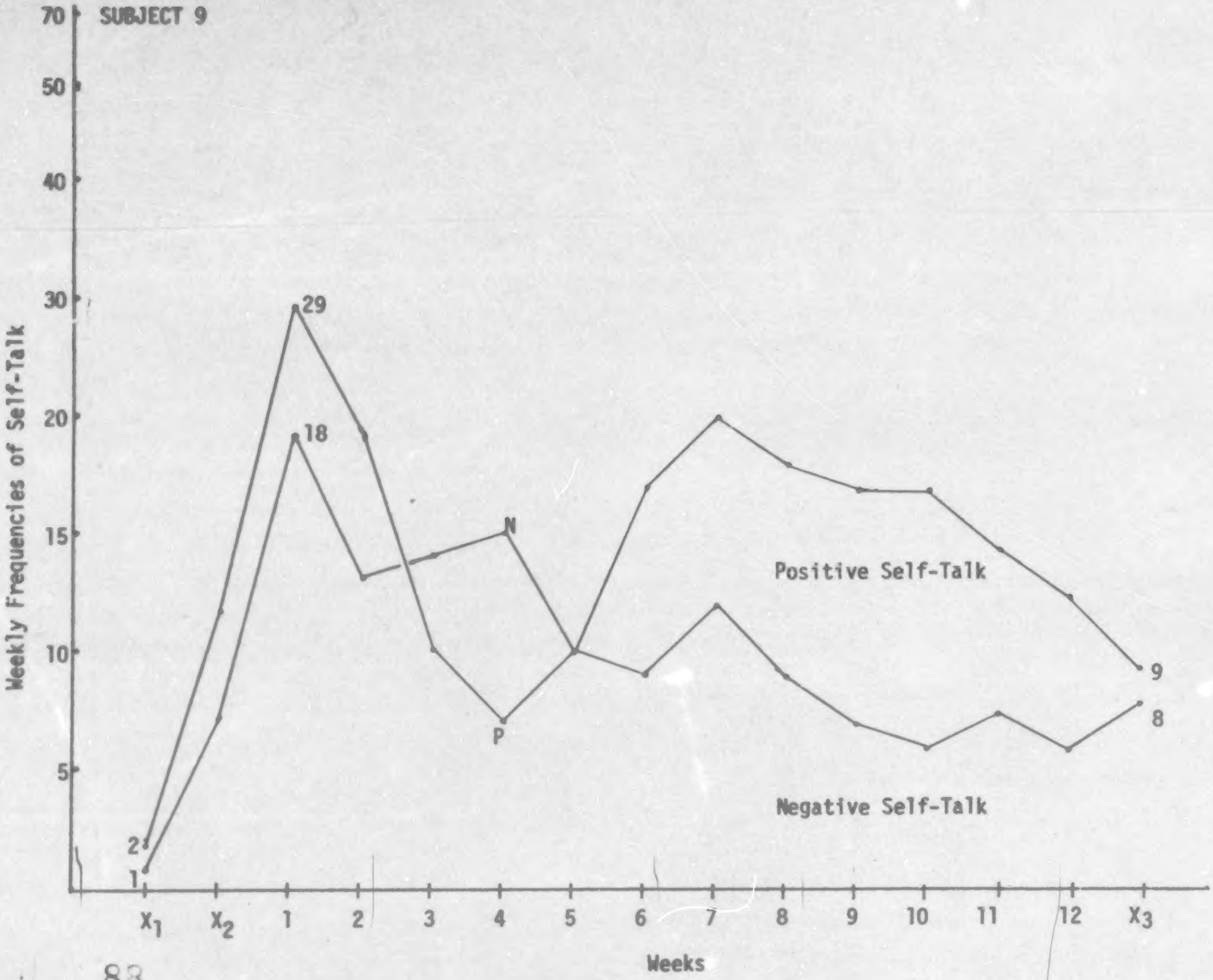
SUBJECT 9
70
50
40
30
20
15
10
5
Weekly Frequencies of Self-Talk
29
18
N
P
2
1
9
8
Positive Self-Talk
Negative Self-Talk
X1
X2
1
2
3
4
5
6
7
8
9
10
11
12
X3
Weeks

Figure 10

The figures reflected a number of characteristics in the changes of weekly frequencies of positive and negative self-talk. Two subjects showed low response rates (Subjects 1: Negative and 3: Negative) while two others reported high response rates (Subjects 2: Negative and 6: Positive). Four students logged negative self-talk frequencies higher than positive self-talk (Subjects 2: All data points; 4: One point; 7: One point; and 9: Three points). The graphs of seven subjects were erratic, showing little trend and high variability (Subjects 2: Positive; 3: Positive; 4: Negative and Positive; 5: Negative and Positive; 7: Negative and Positive; 8: Positive, and 9: Negative and Positive). Two persons reported gradual increases after baseline (Subjects 1: Positive and 2: Positive) and two reported gradual decreases after baseline (Subjects 5: Positive and 8: Negative). Overall, the data suggested that variability was high, reliability was initially poor but improved over time, and consistency was greater with reports of negative self-talk.

In spite of the great variability among the subjects' self-reports, analyses of weekly frequencies derived from the Nursing Self-Talk Logs supported the contention that multimodal career education can shape the self-talk of nursing students toward the practice of professional nursing. Data from the figures were reviewed in terms of whether post-test frequencies were greater or less than pre-test frequencies. The review resulted in a classification scheme that is reflected in Table 20.

Table 20

Pre- to Post-Test Comparisons of Weekly Self-Talk Frequencies

		Positive Self-Talk	
		Increase	Decrease
Negative Self-Talk	Increase	2[a]	
	Decrease	4	3

Note: The classifications are based upon pre- to post-test changes in the frequencies of positive and negative self-talk.

[a] This statistic includes one "no change" in the frequency of positive self-talk.

The classifications in Table 20 confirmed the beneficial effects of multimodal career development activities upon nursing self-talk. In all cases, course completers reported some progress toward the goal of increasing positive talk and decreasing negative talk. That is, in no case did both positive self-talk decrease and negative self-talk increase. Decreases in positive talk were associated with decreases in negative talk. In addition, increases in negative talk was accompanied by increases in positive talk. Four subjects reported results which fit well with the research hypothesis.

Summary of Results. Overall, the results from the quasi-experimental trial were encouraging. There was movement toward the stereotypical occupation code of SA/I on the Vocational Preference Inventory (VPI). In addition, increases in Masculinity and Status Scale scores and decreases in some high Infrequency and Acquiescence Scale scores suggested greater personal and vocational adjustment after exposure to multimodal career education. Observed pre-test differences between attrition and completion groups presented some directions for future research in that attrition group members scored higher on the Conventional Scale and lower on the Intellectual Scale.

Attrition group members also scored lower on the Rathus Assertiveness Scale (RAS). Those who completed "Personal Development for Nursing Students" demonstrated gains in assertiveness as measured by the RAS and Factor E of the Sixteen Personality Factor (16 PF) test. Changes in scores on the Bem Sex-Role Inventory (BSRI) confirmed further shifts toward greater action-orientation and sex role flexibility. Increases in Masculinity scores and decreases in Femininity scores were noted generally while some movement toward the Androgynous classification were observed too.

Gains in Attitude Toward Women Scale (ATS) scores indicated readiness to explore nontraditional roles and values. On the Work and Family Orientation, (WOFO) questionnaire, increases in Mastery and decreases in Personal Unconcern scores showed heightened career commitment and diminished "fear of success" respectively. Unexpected decreases in Work and Competitiveness reflected less interest in hard work and competition among some of the nursing students.

Changes in raw scores on the 16 PF produced mixed results. There were beneficial shifts toward greater assertiveness (Factor E), enthusiasm (Factor F), astute behavior (Factor N), and self-assurance (Factor O). There was a dramatic gain in self-sufficiency (Factor Q_2), but this result must be qualified in terms of some observed tendencies toward expediency (Factor G) and radicalism (Factor Q_1).

Although there was great variability among the graphs of frequencies of positive and negative self-talk, data gathered by means of the Nursing Self-Talk Logs showed movement toward nursing. Frequencies of self-talk away from nursing rather consistently decreased. Lack of reliability among the self-reports diminished the value of the instrument, but the logs may be viable in future research.

Conclusions and Recommendations

The results of the quasi-experimental trial must be interpreted cautiously due to the small sample of course completers and the great variability in some scores among individuals. Movement toward greater masculinity or androgyny is a general area for additional reserach and development efforts. The observed gains in assertiveness present another global variable for determining outcomes of multimodal career education. Changes in other outcome measures suggested directions for future applied research and ongoing student evaluation within pilot programs.

The results of the literature review and other phases of the Developmental Research and Utilization (DRU) effort confirmed that the nursing shortage is a critical problem--one that is related to job dissatisfaction and insufficient career orientation and development. Multimodal career development activities were produced and disseminated according to the DRU model in order to present adequate career exploration opportunities for nursing students.

Additional research to identify predictable differences between persons who leave nursing school and those who complete training would provide valuable information for developing multimodal career education. In addition, a longitudinal study to assess the duration and generalization of multimodal career development gains is desirable. The tentative findings of this project suggest that more rigorous, parmetric research is warranted.

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The Problem of Retaining Nurses in the Workforce

A Position Paper

Texas Education Agency Project 11230051

Stephen Southern
Project Director

Odessa College
Odessa, Texas

1981

The Problem of Retaining Nurses in the Workforce

The following overview describes the shortage of nurses in Texas in terms of the difficulty in retaining trained staff in the workforce. The shortage of nurses is briefly discussed, with special attention to the large number of nurses who choose not to be employed in the profession. Job dissatisfaction and other factors related to attrition are considered. Finally, the findings of the Texas Blue Ribbon Commission and the present project's advisory committee meeting are summarized.

The Shortage of Nurses

According to a study conducted through the School of Nursing at the University of Texas (Wandelt, Hales, Merwin, Olsson, Pierce, & Widdowson, 1980), Texas is one of the states experiencing a critical shortage of registered nurses. A survey conducted by the Texas Hospital Association (1979), reported that 14 percent of the available nursing positions remain unfilled. By the end of 1980, as many as 31 percent of the positions were expected to be vacant (Texas Hospital Association, 1979). In response to this critical shortage, the popular media (including television and newspaper) have reported curtailment of services, restriction of elective surgery, and elimination of some patient units. In spite of extensive recruiting efforts and large-scale marketing schemes in Texas and the United States, graduates of foreign nursing schools are filling an increasingly larger proportion of the vacancies (Haddad, Note 1; First, Note 2).

The _Occupational Outlook Handbook_, 1980 Edition (Bureau of Labor Statistics, 1980, pp. 395-398) reports that nearly two-thirds of the job openings expected in health occupations will be for nursing personnel. Growth in employment of registered nurses is expected to be great due to several factors: extension of prepayment programs for hospitalization and medical care, expansion of medical services as a result of new techniques and drugs, and increasing interest in rehabilitation and prevention (Bureau of Labor Statistics, 1980, p. 397). The employment outlook for Licensed Vocational Nurses (LVNs) is also very good, although the shortage of LVNs is less severe in Texas. Nevertheless, a survey of employer requirements for entry-level health occupations workers (Hayes, Zukowski, Johnson, & Southern, 1980) revealed that assistance-level employees (e.g., nurse aides) often perform tasks associated with professional nursing when there are demands in hospitals or nursing homes.

The Occupational Outlook Handbook, 1980-81 Edition, noted a trend toward requiring higher educational qualifications for all positions, including the Bachelor's degree for some administrative and specialized positions (Bureau of Labor Statistics, 1980). Similarly, career ladder programs in the community college have flourished as the demands for upgrading training continue. While the nursing profession emphasized the Bachelor of Science in Nursing as the entry-level credential and encourages the trend toward graduate education (see LaRochelle,Note 3), Texas hospital administrators and physicians seek to define standards and renew institution-based training programs in order to address the imbalance between supply and demand (Haddad, Note 1).

The National League for Nursing (see Wandelt et al., 1980) predicted that the number of admissions and graduations will not increase over the next few years. However, one of the recommendations of the Texas Blue Ribbon Committee (Texas Nurses Association, 1981) was to produce 20 percent more graduates per year over the next one to four years. Although increasing the initial supply of nurses will address the critical shortage, the literature reviewed during the present study suggests that the large number of inactive nurses is a major contributor to the work force imbalance.

According to a 1978 survey by the American Nurses Association, only 70 percent of licensed nurses are employed in nursing (see Wandelt et al., 1980, p. 23). Nearly 18,000 nurses are licensed to practice in Texas, but are not employed in the profession, while 13 percent of the available workforce are employed only part-time (Wandelt et al., 1980, p. 23). Unemployment of licensed nurses is a function of withdrawal from the labor market. The long-range solution to nurse shortage is probably related to improving the retention of skilled workers in the hospitals.

Attrition and Job Dissatisfaction

The study by the School of Nursing (Wandelt et al., 1980) identified a number of factors traditionally associated with withdrawal or attrition including economic aspects of employment, restrictions placed on employment by lifestyle and family responsibilities, and elements of the employment itself. In the study, areas of job dissatisfaction among nurses were partitioned into eight subdivisions. Six of these were reported as reasons for leaving by 50 percent or more of the inactive nurses who were surveyed. Reasons for leaving were lack of "administrative support," inadequate salary benefits, inconvenient scheduling, unsatisfactory working conditions, stringent demands of family and transportation, and dissatisfaction with the professional role of the nurse within the hospital.

Numerous reasons for job dissatisfaction have been identified by researchers (Annendale-Steiner, 1979; Cronin-Stubbs, 1977; Godfrey, 1978) including understaffing, lack of primary care opportunities, poor working conditions, and unsatisfactory working relationships with both health care team peers and supervisors. The need of nurses to be recognized as professional appears to be basic to the issues involved in attrition among nurses.

Many of the identified areas of dissatisfaction among nurses could be perceived to persist, and perhaps orginate, from relatively low status afforded nurses in the hospital.

There are many factors which inhibit nursing as a profession. Because nursing must rely on other fields such as psychology and medicine, it lacks a unique body of knowledge and skills. It is therefore considered a semi-profession or "captive" profession (Etzioni, 1969). In order for a field to be considered a profession, it must be recognized as such by outside groups (Davis, 1977). In nursing those outside groups include physicians and hospital administrators. Because of the present social status of nurses within hospitals, prospects for such recognition are not promising.

Another factor which limits professionalization is that nursing is described as "sex-linked" (Hall, 1977). Nursing is viewed as an extension of the traditional female role. This linkage reinforces low pay and low status in the nursing fields just as sex bias and discrimination persist in general. Research on women who enter traditionally female occupations shows that such women are even more dedicated to traditional female values than their counterparts who have no vocational interests (Hall, 1977). In addition, they are, in general, not motivated by a plan to pursue a career. Therefore, not only is the field of nursing victimized by stereotyping externally, but internally as well.

Assertiveness training has been suggested by some as a possible tool by which to counter the resistance met by nurses in seeking professionalization (Herman, 1978). The hypothesis is that having assertion skills would help nurses to achieve more status and greater equity in the social order of the hospital. Since assertiveness training has been shown to enhance self-esteem, assertion skills could be helpful to the nurse who is struggling to achieve a perception of self-worth. Real and self-imposed limitations restrict the recognition of the nurse as a fully-qualified member of the health care team.

Assertiveness training is no panacea, however, for the very complex problem. Assertive persons are often labeled negatively by both men and women (Davis, 1977). Moreover, assertiveness among staff nurses has not generally been rewarded be either nurses of similiar status or their supervisors. Assertiveness may threaten the structure and organization of the hospital which has existed for years.

Nevertheless, there are trends toward greater specialization and independent practice--manifested in new and emerging occupations such a physician's assistant and nurse practitioner (Kuritsky & Reeder, 1971; LaRochelle Note 3)--that offer significant opportunities for personal and professional growth. When nursing students are made aware of career advancement and continuing education opportunities through timely career education, commitment to professionalization can be enhanced. In the final analysis, the solution to the attrition problem may rest with increases in assertiveness among nurses as a group. The professional associations and special interest groups provide the vehicles for effectively addressing problem. Career education for nursing students must then address professioanl organization, recognition, and career advancement.

Recommendations by the Texas Blue Ribbon Committee

In October 1979, the Board of Directors of the Texas Nurses Association established a Blue Ribbon Committee to review the status of nursing in Texas (Texas Nurses Association, 1981). One of its major tasks was to investigate the critical nurse shortage and to make recommendations for an immediate solution to the problem. The committee was also charged with the responsibility of developing a long-term plan of action for 4 to 10 years which will generally improve nursing practice.

The Blue Ribbon Committee selected the Analysis and Planning for Improved Distribution of Nursing Personnel and Services model, which was developed by the Western Interstate Commission for Higher Education (WICHE), to guide the applied research effort (see Texas Nurses Association, 1981). Using the WICHE model, the various subcommittees in the Blue Ribbon panel reviewed the literature, collected statistical data, and conducted hearings. The various recommendations of the entire committee are reviewed in the following paragraphs.

The Blue Ribbon Committee observed an absence of comprehensive, systematic data-gathering regarding nursing resources and a failure of education to develop the four to ten year, long-term plan or a task force (among the Texas Education Agency, the Coordinating Board of the Texas College and University System, the Board of Nurse Examiners, and the Board of Vocational Nurse Examiners) to review the literature and recommend implementation plans.

The committee observed that many nursing schools can increase their enrollments by 20 percent in order to alleviate the current shortage (Texas Nurses Association, 1981, pp. 10-11). They expressed concerns over the lack of financial support and the decline in recruitment programs. The committee proposed reasons for a 15 percent decline in applicants (Texas Nurses Association, 1981, p. 11).

> High school counselors have reduced their efforts in encouraging nursing as a profession because of:
>
> 1. little knowledge of the development of the profession
> 2. the belief that schools are flooded with applicants
>
> There has been a gradual leveling off of 18-22 year-olds in the United States, and, hence, fewer high school graduates who are interested in nursing programs.
>
> Nursing, traditionally a woman's profession, is now encountering difficulties in recruiting the young woman of today who has more career opportunities.
>
> Fewer than 25% of the Texas schools have formalized recruitment programs other than a career day at high schools.

In response to observations and opinions about the declines, the Blue Ribbon Committee made several recommendations.

For the next one to four years, the committee recommended that the current nursing education system produce 20 percent more graduates per year (Texas Nurses Assocaition, 1981, p. 11). They also asked that a statewide committee of interested organizations be formed in order to develop and distribute materials to groups engaged in nurse recruitment. They proposed that the committee act as a statewide clearinghouse for information on available grants, as well (Texas Nurses Association, 1981, p. 11).

According to the Blue Ribbon Committee, the shortage could be alleviated through the formation of local advisory committees on recruitment for each school of nursing. The advisory committee membership would consist of prominent nurse leaders, local members of nursing and medical associations, local school district representatives, hospital administrators, leaders in women's centers, and adult education counselors (see Texas Nurses Association, 1981, pp. 11 ff). Finally, the committee suggested that recruitment programs focus on the following target populations: older (than average) students, men, individuals with non-marketable careers, women (often with family responsibilities) who are seeking first or second careers, and minorities.

Other recommendations by the committee addressed career access and mobility. In observing that 60 percent of nursing schools offer advanced placement of LVNs into RN curricula and that an average of 30 percent of ADN enrollees are LVNs, the committee suggested that all programs embrace this "career ladder" approach (Texas Nurses Association, 1981, p. 13). They also recommended highly intense nursing education programs for individuals who already hold degrees in non-marketable careers. Furthermore, a nursing school should offer satellite programs in institutions of health care. The purposes of these programs would be to offer accessibility and educational mobility to employees, offer incentives for employee retention, and provide increased RN employees for institutions.

The Blue Ribbon Committee then reviewed the causes for job dissatisfaction. They found representation in their surveys of the concerns delimited by Donovan (1980, p. 27): no input of matters concerning you, low patient-care standards, excessive demands on you, inadequate salary, not enough say in patient care, too much paperwork, no chance for advancement, limited educational opportunities, insufficient challenge, and lack of recognition. The committee identified two major categories in job dissatisfaction, lack of administrative support and guidance and non-competitive salaries and benefits.

The observations of the committee related to lack of support and guidance were interpreted as management problems.

> ...The committee perceived that many of the items that the RNs cited as problems in the work setting were indicative of management problems. Such items as "no input on matters concerning you," "not enough say in patient care," and "no chance for advancement" could all be addressed through sophisticated management tools. In Texas, over 60% of the directors of nursing service have Associate Degrees (or) Hospital Diplomas in Nursing. The educational program for an ADN or Diploma, because of time limitations, does not provide instruction in management, administration or personnel development. The committee believes this is one of the most evident problems in employee dissatisfaction and turnover (Texas Nurses Association, 1981, p. 16)

In response to the observations, the Blue Ribbon Committee recommended development of management training programs for nurse managers and the extension of current master's programs in nursing service administration. While preceptorships, internships, and management training may be useful restructuring some aspects of the hospital social system, many of the aforementioned expressions of job dissatisfaction relate to cognitive behaviors (including self-imposed restrictions) of the individual nurse.

The project staff does agree with the observations and recommendations concerned with pay and benefits (Texas Nurse Association, 1981, p. 17). The committee and the project staff have observed major improvements in salaries in some parts of the state. However, the need for equity in salary remains. Salaries should be commensurate with professional expectations, responsibilities, educational levels, and competencies, especially in the direct care services. Differential pay systems for shift work should be more commonplace and opportunities for flexible scheduling should be explored--Baylor Hospital in Dallas has become well-known for its innovations in scheduling and compensation packages. Although salary and fringe benefits must continue to improve in order to attract nursing graduates to the hospitals, other factors may be more crucial in reducing the rapid turnover rates.

The Blue Ribbon Committee addressed the vicious cycle of dissatisfaction and resignation. They identified the following key factors (Texas Nurses Association, 1981, p. 18).

> Less is known about why nurses remain active and why they stay in a particular hospital than why nurses leave.
>
> Traditional turnover rates are calculated, but less often are stay rates and stability rates calculated.
>
> Nurse utilization is a critical factor in retention.
>
> Nurses are often not involved in decision-making processes regarding working conditions.
>
> Nurses in hospitals work in a subservient climate and most often do not control their practice.
>
> Opportunities for advancement are limited in hospitals.
>
> Little effort is made to assist new graduates with the effects of "reality shock."
>
> The work values of nurses today have changed.

> Unstable shift rotations do have a negative effect on retention.
>
> A major factor in nurse retention is "burnout."
>
> Social status and prestige in nursing is an unmet need in many agencies.

Addressing these factors, the committee made the following recommendations (see Texas Nurses Association, 1981, p. 18).

> Identify, acknowledge and reward work values held by professional nurses.
>
> Establish summer work programs for students.
>
> Delineate appropriate roles for professional nurses and others with impinging jobs and functions (pharmacy, housekeeping, administration, etc.).
>
> Include nurse administrators in management level and policy making groups.
>
> Establish institutional joint practice committees to resolve physician-nurse conflict.
>
> Identify ways of utilizing nurses with existentialistic work values in today's hospitals.
>
> Provide individual orientation.

Many of these recommendations fit well within the framework of comprehensive career education. In fact, suggestions for mobilizing the inactive nurse workforce directly address matters in career development (see Texas Nurses Association, 1981, p. 19). Since disillusionment and complexity of the job setting generally lead to dissatisfaction within the first three years, hospitals should establish professional growth and development programs for the newly licensed RN. The programs should include preceptorships, internships, and career counseling, according to the Blue Ribbon Committee. In addition, the committee recommended innovative programming such as employee child care, flexible work scheduling, and refresher coursework for inactive RNs who are returning to work (Texas Nurses Association, 1981, p. 19).

In the Condensed Hearing Testimony of the 19 March 1980 Blue Ribbon Committee hearing in McAllen, Texas (Texas Nurses Association, 1981, pp. 23-30), other observations and suggestions related to career education. For example, the committee stated that entrance social/psychological testing may assist in retention. They also recommend that schools address nursing student expectations and work values. Most students wish "... to help people via direct patient care, to use special skills, to administer care, and to achieve a feeling of self-worth and personal satisfaction on the job" (Texas Nurses Association, 1981, p. 23). This is an excellent statement of the concerns of career development.

The Blue Ribbon Committee, in the hearing testimony (Texas Nurses Association, 1981, pp. 27 & 29), specifically calls for the provision of a good orientation plan, an ongoing support system, and specialized training regarding the role of the nurse in the total health care effort. They cited the good results with orientation and training experiences designed to reduce "reality shock," or the disparity between the ideals of school and the demands of the hospital work place.

The initial results of the Texas Nurses Association Blue Ribbon Committee study suggest some short-term solutions to the great problem of retaining nurses in the hospital. The committee emphasized the needs to recruit more vigorously from nontraditional groups, to orient new nurses and students to their profession, to offer more competitive salaries and and benefits, to design flexible schedules and work environments, and to provide management training for nurse administrators. Many of these issues were discussed in the advisory committee meeting for the present project.

Advisory Committee Report

The advisory committee for the present project included experienced professionals who represented a variety of viewpoints. In October 1980, a meeting, which was held in Dallas, was attended by the following members: Kiar First, clinical coordinator of AD Nursing at El Centro College, Dallas, Texas; Charles Hannaford, doctoral student and former nurse administrator; Clair Jordan, Director of the Texas Nurses Association; Anna Pearl Rains, Executive Director of Inpatient Nursing Services, University of Texas Medical Branch at Galveston; and Barbara Wiechmann, Director of Contemporary Staffing, Inc., a placement agency in Dallas, Texas. The interaction of the project staff and advisory committee at this meeting provided direction for the specification of the retention problem.

Most of the issues discussed in the aforementioned meeting related to job dissatisfaction as a function of "gaps" between actual and needed training, nurses' expectations and the realities of the hospital, traditional role perceptions and opportunities for expansion, and interests of some hospital administrators and professional nurses. New graduates are often disenchanted with the hospital setting, while career-minded persons returning to school to upgrade their skills experience difficulty adjusting to the classroom.

Both LVNs entering Associate Degree programs and RNs pursuing Bachelor's degrees report "college shock." Confidence and skill level are frequently low for these students and the myriad of academic courses are unfamiliar and distant from the practice of nursing. The attrition rate in nursing schools can be as high as 50 percent. Development and application of adequate predictors for success could reduce attrition through better selection of candidates. Early preparation of nursing students for ongoing education and career development is another approach to integrating the nursing school and the hospital workplace.

There is a movement to train-up both direct service and administrative skills in nursing education. However, the status of the profession will not benefit substantially from the upgrading of educational requirements unless quality assurance data are collected. In accordance with the more behavioral, experimental approach to training, it is logical to assume that "if you can't measure it, you can't change it." Such a stance permits greater articulation in training at each level in career ladder nursing education.

There exists a sequence in training generally which incorporates the two major viewpoints of nursing: it is a problem-solving process and it is an interaction process, or the artful application of knowledge. The training sequence addresses technical skills first, then interpersonal and behavioral information, and, finally, decision-making and problem-solving skills. Nursing education functions well in the training of psychomotor or technical skills, but performs less adequately in teaching interpersonal skills. One problem in teaching interpersonal skills is focusing on discrete techniques, such as relaxation training, rather than the relationship between the nurse and the patient. Another problem is the failure to direct interpersonal skills training to the important relationships among the nurse and other members of the health care team.

When specific interpersonal techniques are taught in isolation, there is a tendency to employ them in an indiscriminate or routine fashion. The "law of the hammer" leads the nurse to use the techniques with all presenting problems, rather than using professional discretion in building relationships. One approach to interpersonal skills training has promise for improving the personal/career development of nurses, as well. Human relations training, in this approach, would use the real, day-to-day experience of the nurse or student as data for investigating the outcomes of particular interactions.

Training in the Associate Degree programs should initially focus upon building technical skills and then move to a more personal type of human relations training. Many shcools of nursing are addressing the individual needs of students by making available special counselors and services. Students in AD programs may also need assistance with academic coursework including study skills training and tutoring in the basic sciences. Education in Bachelor's Degree programs should include additional training of interpersonal skills, intensive development of clinical specialities, and instruction in administration and organization. Graduate training in nursing would then address the needs of the profession related to professionalization, curriculum development, and research. Continuing education in hospitals is an appropriate vehicle for some of the suggested training. However, continuing education is usually reserved for beginning nurses and often focuses upon the orientation of the individual to the specific institution. Topics include information on lines of authority, grievance procedures, and protocol, although there is increasing attention given to stress management and "burnout" assistance.

Nurses who survive their college experience receive "reality shock" as they enter the working world. Clinical training may not prepare graduates for the real demands placed upon nurses in the hospital. The nurse is the only staff member who performs duties 24 hours a day and who assumes (unfairly) the roles of others--including pharmacy and housekeeping personnel--as they leave the hospital. Also, nursing students are often drawn to the profession due to the"glamour of the white uniform" and experience distress when exposed during clinical training to the blood and suffering in the hospital (Adams, Note 4). One way to make training more representative would be to use active practitioners as instructors. Another approach calls for increasing the similarities between the training labs and hospital settings.

Attendance at a preregistration orientation could be used to introduce potential students and their families to the realities of nursing practice. This procedure, which is offered at El Centro College and some other institutions, emphasizes problem-solving and decision-making with respect to role transitions. Exit interviews and pre-employment orientation also helps with the adjustment from student to professional. Since "career" is lifelong learning, professional development could be facilitated by incorporating vocational guidance activities within the ongoing academic and clinical training.

Assertiveness training has received much attention in nursing education. Such training helps to counter the tendency to assume "Minnie Mae Doormat" roles and to improve communication with physicians and other health care team members. Many students in the 35-45 age range--the more traditional, returning students--need instruction in the application of assertion skills. Inappropriate application of assertion skills may hurt rather than help the professional development of nurses. Most assertiveness training in nursing education is the short-term, "cook-book" variety which does not sufficiently address the complexities of the hospital social system and the consequences of assertive behaviors in the "Win-lose" setting at some work settings. Infusing assertiveness training within the ongoing curriculum and training nurses to be charge agents may be more effective to altering restrictive structures within the hospital.

Related to the issue of "appropriate assertiveness" is the need for greater political awareness among employed nurses. Before nurses can facilitate change, they must attain greater awareness of the hospital standards, the politics of the work setting, and the means by which data are gathered and presented to decision-makers. Nurses and nursing students must learn to appreciate the implications of legislative and administrative decisions.

They can understand the impact of the shortage problem and the opportunities presented for professional development. There are opportunities to improve salaries and working conditions; however, the trend toward expansion of roles may be slowed if the medical establishment gains control over training in order to reduce the imbalance between supply and demand.

The advisory committee was very helpful in identifying and, then, reducing the number of significant factors which relate to the nursing shortage. Essentially, the situation was described as a lack of individual and profession-wide influence upon the development of nursing practice. The advisory committee, as well as the Blue Ribbon Committee, noted the importance of training in changing the behaviors and attitudes of nurses and the overall status of the profession. The hospital may be a restrictive climate for personal and occupational growth. Yet, the situation can be improved through increased political awareness, understanding of the values of androgyny and assertiveness (rather than role stereotyping and subservience), and interest in professional organization and representation.

Summary

All of the literature reviewed in the initial stages of the present project substantiate the critical shortage of nurses in Texas and across the United States. Salaries and benefits are improving, and will continue to do so throughout the 1980s; however, some schools have experienced difficulties in recruiting and retaining sufficiently large numbers of students to meet the demands of the workplace. In addition, graduates who enter hospitals tend to become dissatisfied within three years, taking other positions or leaving nursing. The high turnover rates and the large pool of inactive RNs are concrete manifestations of an ongoing problem with professionalization within nursing.

While better salaries and benefits may attract more applicants to nursing schools and retain more experienced nurses in the hospital setting, nursing will continue to experience long-range problems in recruitment and retention until the status of the profession is enhanced. Like other "captive professions, " nursing must be recognized by outside groups--specifically, physicians and hospital administrators--in order to attain full professional standing and the accompanying status and political influence. Since nursing has been "sex-linked" to the traditional, nurturing and submissive roles of the woman, professional growth has been slowed by sex bias and stereotyping as well as lack of assertiveness and action-orientation among individual members of the profession.

Through education and professional organization, nursing can have greater influence upon the standards for practice and training, the conditions of employment, and the hospital systems for patient care. Involvement in management training and professional association will prepare nurse administrators for key roles as change agents, participating in major policy and procedural decisions. Successful administrators and clinical specialists will offer powerful role models to students and recent graduates. Continuing education and organizational activities designed to improve the status of nursing can be considered a long-range macrosystem approach to solving the problem of the nurse shortage. Securing better pay and benefits, recruiting more nursing students, and placing more temporary, part-time nurses in hospitals can be labeled as short-term macrosystem approaches to the problem. Orientation and continuing education activities designed to address the need for individual career development are microsystem approaches which demand additional attention.

Nurses wish "...to help people via direct patient care, to use special skills, to administer care, and to achieve a feeling of self-worth and personal satisfaction on the job" (Texas Nurses Association, 1981, p. 23). The Blue Ribbon committee specifically recommended that attention be paid to the expectations and values of nurses and nursing students through the provision of a good orientation program, an ongoing support system, and specialized training regarding the role of the nurse in the total health care effort. With additional guidance and consideration of the reality and promise of nursing, the disillusionment experienced by many graduates who enter the hospital could be reduced.

Recruitment of nurses from new target populations--older students, men, individuals with nonmarketable degrees, and women who wish to return to the workforce from the home--could increase the potential pool of graduates and contribute to higher retention rates in the workplace. Expansion of opportunities in the career ladder approach to education could also promote ongoing decision-making and progress for persons already working within the health care system. If the nursing career were viewed as lifelong learning and personal growth, then dissatisfaction and frustration need not result in withdrawal from the school or hospital. Opportunities for adequate orientation to the field and continuing exploration of career would encourage greater professional development for the individual and the discipline.

This project was designed to address the nurse shortage problem from the career education perspective. Rather than attending to immediate macrosystem factors in the imbalance between supply and demand, the project investigated factors of career development in nursing students, who are the pool of potential graduates from which hospitals must draw. The shortage presented the need for the project and the literature, especially the recommendations of the Texas Nurses Association Blue Ribbon Committee, provided general direction for the microsystem approach to the problem of attrition. The observations and expert opinions of the project's advisory committee sharpened the focus of the training effort and confirmed the interest, among practitioners and educators, in career education for nurses. The impact of systematic, comprehensive career education upon professional development and retention was not investigated in the project. However, the value of career education for nursing students suggests that this approach may have merit for recent graduates, disillusioned nurses, and advancement-oriented nurses, as well.

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Multimodal Career Education for Nursing Students

An Instructional Resource Guide

Stephen Southern
Project Director

Karon Topper

Nancy Raley

Glen Walton

Research Associates

Odessa College

Odessa, Texas

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An Instructional Resource Guide for Multimodal Career Education

The following resources were used to construct the curricula which were used in pilot testing and quasi-experimental trial. One of the goals of this project was to develop and evaluate exemplary multimodal career education materials. The present instructional resource guide was the product of this developmental research and utilization effort. The guide provides a framework for planning multimodal career assessment and instruction for nursing students. As a tentative framework, it can offer sufficient information and material to design a multimodal career education course similar to "Personal Development for Nursing Students." In addition, the guide can be used, perhaps more immediately, to create orientation workshops, activities which can be useful in the ongoing program, or vocational guidance exercises for pre-nursing students. The guide was constructed as a resource package and instructional design framework; therefore, the curriculum planner or writer must go beyond the information given and adapt or expand the resources to meet local needs.

Introduction

The primary purpose of the instructional resource guide is to direct the reader to materials which meet immediate needs. To this end, the following table should be used to locate essential background materials.

Table 1

Guide to Background Materials

Information Desired	Resource (Color)	Section (Page Numbers)
Career Education	Convention Paper (Gray) Final Report (Blue)	Career Education (pp. 5-6, 10-11), Rationale (pp. 7-9)

(Continued)

Table 1 (Continued)

Information Desired	Resource (Color)	Section (Page Numbers)
Attrition/Retention Problem	Position Paper (Ivory) Final Report (Blue)	Entire Report Need for the Project (pp. 1-2) Rationale (pp. 5-7)
Multimodal Career Education	Convention Paper (Gray)	Entire Report
Multimodal Career Assessment	Convention Paper (Gray)	Multimodal and Behavioral Assessment (pp. 11-17)
Curriculum Development	Final Report (Blue)	Developmental Research and Utilization (pp. 13-16)
Curriculum Evaluation	Final Report (Blue)	Formative Evaluation (pp. 20-23) Quasi-Experimental Trial (pp. 23ff)
Career Development Activities	Convention Paper (Gray)	Multimodal Career Education And Career Development (pp. 17-23)
Career Development Evaluation	Final Report (Blue)	Method and Procedures (pp. 28-37) Results (pp. 37ff)

The curriculum designer should be well-acquainted with the references in Table 1 before conducting multimodal career assessment or selecting career development activities and exercises. A large array of additional resources are contained in the References sections of the position paper ("The Problem of Retaining Nurses in the Workforce"), the final report ("Final Report: Multimodal Career Education for Nursing Students"), and the convention paper ("Multimodal Career Education for Nursing Students"). Finally, the designer should consult practical resources available from a number of sources for additional ideas.

The Occupational Curriculum Laboratory at East Texas State University (ETSU) distributes the Self Contained Occupational Investigation Modules, produced under the direction of Robert L. Smith, Professor of Student Personnel and Guidance at ETSU, and the four Occupational Investigation Guides (Self-Appraisal, Economic and Societal Factors, Occupational Clusters, and Educational Planning), developed by Sheryl Lackey and Stephen Southern. The Occupational Curriculum Development Center of The University of Texas at Austin offers a wide variety of materials concerned with personal/vocational adjustment and health careers education. Olympus Publishing Company of Salt Lake City, Utah offers many excellent resources including Career Education: What it is, and how to do it by Hoyt, Evan, Mackin, and Mangum. University Associates Press of Iowa City, Iowa distributes the various structured group experience materials which are produced by Pfeiffer and Jones. The best overall resource for the behavioral approach to career education is Social Learning and Career Decision Making edited by Mitchell, Jones, and Krumboltz and published by The Carroll Press of Cranston, Rhode Island, an excellent source for other counseling and guidance materials.

Multimodal Career Assessment

In general, multimodal career assessment should be conducted at the beginning of the unit of instruction or intervention. Assessment is conducted for the purposes of identifying individual strengths and needs (excesses/deficits) as well as those of the class or group. Data gathered through assessment can be used to construct an Individual Career Education Plan and to organize the class or guidance group into several small homogeneous groups for the purposes of designing and conducting instruction. Multimodal career development activities should be selected to address overall needs of the class or more specific needs of homogeneous groups. Multimodal career development exercises are intended to achieve individual goals. Assessment is guided by the Career Development Questionnaire and the BEST IDEA Assessment Rules.

The Career Development Questionnaire (CDQ) was initially used by Robert L. Smith and Stephen Southern to design multimodal career counseling interventions. As Lazarus' BASIC ID model was further adapted to address career education needs, a structured interview protocol (Appendix A) was created. The results of the administration of this protocol were used to complete the Multimodal Career Assessment Chart (Appendix A) and the Multimodal Career Development Profile (Appendix A). When basic assessment is needed and the interview format is desired, the aforementioned resources can be used to secure initial BEST IDEA data. The CDQ should be used to follow-up the interview whenever possible. Recently, the CDQ has been administered routinely in lieu of the structured interview. One strength of the interview protocol is its attendance to the BEST IDEA Assessment Rules.

The assessment rules were developed in order to guide intervention design in the most cost-effective manner. The rules are presented in Table 2.

Table 2

BEST IDEA Assessment Rules

Step in Hierarchy	Description
1.0	Determine which primary factors affect students' career development behaviors
1.1	Identify and define concretely Alpha Factors, if any exist in the individual's case
1.2	Identify and define concretely Developmental Level of the individual
1.3	Identify and define concretely Economic and Societal Factors that affect the individual
1.4	Identify and define concretely Interpersonal Relationships associated with the individual's career development
2.0	Determine which secondary factors affect student's career development behaviors

(Continued)

Table 2 (Continued)

Step in Hierarchy	Description
2.1	Identify and define concretly Behaviors related to the career development of the individual
2.2	Identify and define concretely Self-Talk related to career development Behaviors
2.3	Identify and define concretely Thoughts related to career development Behaviors and Self-Talk
2.4	Identify and define concretely Emotions related to career development Behaviors, Self-Talk, and Thought

The rules conform to two general principles which form the core of the multimodal career assessment approach. Most importantly, assessment time should be devoted to identifying factors which promote the design of "minimal-effective" interventions. "Minimal-effective" refers to the implementation of as few strategies as needed to affect change. This approach has been adopted due to the potentially confounding and negative effects associated with some larger-scale "shotgun" interventions. The second general principle relates to the construct validity of the multimodal model. According to the multimodal approach, primary factors must be determined first because they affect large numbers of persons and influence the expression of each of the secondary factors at the individual level.

While the brevity of the structured interview dictated observance of the assessment rules, the Career Development Questionnaire (CDQ) sampled a broader range of situations, and therefore, it is less dependent upon the efficiency-oriented rules. The CDQ will probably undergo some revision to decrease the complexity of its sampling and scoring. However, a variety of behavioral assessment strategies (see Convention Paper, pp. 13-17) were incorporated in the CDQ so that it is as rigorous a self-report as possible given its stage of development.

The CDQ uses client self-reports which are anchored to a number of specific motoric, cognitive, and physiological behaviors accross a variety of situational contexts or stimuli. The self-reports gathered by the CDQ are more accurate when students (clients) are reinforced for completing the form fully and honestly and insured that data will not be used to evaluate their course progress. The CDQ, Scoring Criteria, Scoring Summary, and Score Conversion are contained in Appendix B. These resources allow the systematic analysis and classification of the self-reports. Major and minor strength codes and need codes are generated. These codes provide the basis for selecting career development activities and exercises.

Precise evaluations involving more direct measures can be used to complement the multimodal career assessment which was initiated by the interview or the CDQ. Direct observations of client behaviors in problem situations suggested by the CDQ results are the most objective and powerful strategies. Audio or video tape recording can be used to secure samples of behavior and preserve data for more intensive analysis than is possible through contemporaneous coding of observations. Role playing and contrived situations may be used to facilitate interactions for the sake of assessment. Cognitive behaviors can be assessed by checklists or logs such as the Nursing Self-Talk Log (Appendix C). Other behavioral and psychometric instruments (see Appendix D) can be enlisted as measurements of the behaviors and characteristics that compose the multimodal factors. Texts which describe opportunities in behavioral assessment are included in the References sections of the papers in this volume.

Multimodal Career Education

Multimodal Career assessment delineates primary and secondary factors which present obstacles to career development. Multimodal career development interventions emphasize primary factors for groups of students and secondary factors for individuals. Although some activities include the entire class, many interventions will be offered to individuals or small homogeneous groups of students. In matching interventions with individual career development needs, the factors should be considered in the same order as that cited in the assessment rules. The design of Career Development Plans for the entire class and Individual Career Education Plans take into account the Need Codes derived individually and collectively from the CDQ. For example, all individuals whose first-ranked primary need factor in the Need Code is "Alpha Factor" should receive initial attention in the construction of interventions.

Interventions designed to address primary factors require timely implementation and significant involvement of resource persons. When alpha facors are identified as impediments for career development, the instructor should immediately refer the student to professional helpers. Alpha factors such as alcoholism or substance abuse--both encountered among nursing students in this project--must be treated by a physician, counselor, or therapist before attention can be directed at other modalities. Similarly, individual treatment for significant illness and psychopathology, insomnia, and stress-related lifestyle disorders should be initiated immediately.

Individual needs associated with Developmental Level must also receive immediate attention. Students with serious developmental problems, such as learning disabilities or study skills deficits, need not be referred exclusively to remedial programs. Nursing students with Developmental Level needs can participate in multimodal career education by adapting individual and group activities. Classroom activities must be accessible to handicapped students. Developmental Level interventions may include modifications of instructional resource materials to deal with cognitive organization and age-appropriate behavior. For example, the Cognitive Mapping Instrument (Nunney & Hill, 1972), Loevinger's (1976) Sentence Completion Blank, or the Conceptual Systems Profile (Southern, Caris, & Kyle, 1977) can be used during the assessment phase to provide direction for materials adaptation according to cognitive style. Some students will require predominantly visual activities, while others will experience good results with activities that stress auditory or aesthetic media. Some students will require concrete activities with immediate external reinforcement; others will benefit from complex, exploratory activities with self-reinforcement. The Nelson-Denny Reading Test (Brown, Nelson, & Denny, 1973) and other academic achievement tests may be used to identify specific needs for initial placements. Developmental Level activities in the present project included training in study skills, instruction in test-taking and memorization techniques, and discussion of creative thinking.

Interventions which are matched with Economic and Societal Factors are less concerned with altering the stimulus properties of other career development activities--such as modifying instructional resource materials--and more concerned with providing psychological education and career information about the world of work. Societal influences upon career choice, effects of various environmental motivators (money, prestige, etc,), interactions of labor market demands and supplies of workers, and related socioeconomic factors (e.g., ethnic and cultural pride) can be considered in large presentations, small discussion groups, or individual explorations. In the present project, nursing students were provided multimodal career education activities related to sex bias and sex role stereotyping--classified as a Self-Talk activity when the cognitive approach is emphasized--and to current occupational information.

Interventions with Interpersonal Relations are among the activities most easily managed by the instructor. These interventions concentrate upon structured group experiences (Pfeiffer & Jones, 1980), social skills training (Bellack & Hersen, 1979; McFall & Twentyman, 1973), and assertiveness training (Alberti, 1977; Lange & Jacubowski, 1976). The goals of activities that involve organized groups of students are increasing collaborative conflict resolution, human relations and communiation skills, and problem-solving behaviors. Many of the activities will address individual needs to overcome anxiety and self-preoccupation, fear of social situations, lack of assertiveness, and performance deficits (e.g., Lange & Jakubowski, 1976). Social skills training and behavioral counseling activities will focus upon building appropriate interpersonal behaviors for a variety of settings and situations including speaking over the telephone, asking questions in class, and addressing an employer regarding a grievance. The "Personal Development" class included assertiveness training designed especially for nursing students (see Herman, 1977). The activity sheets for the initial assertiveness session method for associating Need Codes with activities is included in the appendix.

Secondary interventions are very individualized. When sufficient work with primary factors is underway, intervention strategies for modifying specific career development behaviors are indicated. The priority for implementing interventions is, in decreasing order, Behavior, Self-Talk, Thought, Emotion. Due to the complexities associated with work on emotions, the expertise of counselors or therapists may be needed to remove career development barriers. In multimodal career education, the majority of student and program resources should be directed at the self-modification of concrete overt and covert behaviors. Presentation of the multimodal approach (Lazarus, 1976), operant conditioning and behavioral self-management (see Watson & Tharp, 1977), and social learning theory (Bandura, 1969) will enable students to master requisite skills for changing career development behaviors.

Interventions with Self-Talk can be as rigorous as activities concerned with modifying overt behaviors. Self-Talk interventions, which are cognitive-behavioral in focus, include rational restructuring (see Goldfried & Davison, 1976), self-instruction training (Meichenbaum, 1977), problem-solving training (D'Zurilla & Goldfried, 1971), and stress inoculation training (Meichenbaum, 1973). Each of the aforementioned techniques are concerned with the modification of internal statements--also called "attitudes," "evaluative beliefs," and "values"--that suppress or inhibit appropriate, goal-directed career development activities. Modification of internal statements or cognitive behaviors involves engaging in realistic, positive self-talk rather than in debilitating negative self statements, "put-downs," and irrational "oughts" and "shoulds." Cognitive contingencies can be manipulated in many of the same ways as overt behaviors (Mahoney, 1974); therefore, Self-Talk interventions naturally follow and support Behavior interventions. Cognitive behavioral interventions, expecially self-management (Stuart, 1977: Watson & Tharp, 1977) and problem-solving (D'Zurilla & Goldfried, 1971) can be cued by written materials or guides in other media. Individual and small group formats can be used to offer the earlier-mentioned specific techniques. Individualized assessment through the completion of inventories and cognitive behavioral probes is essential to effective interventions with Self-Talk problems.

If the images and daydreams that constitute the Thought factor have been specified clearly, then effective interventions are possible. Often, thoughts which cause career development problems are related to unrealistic self-talk and inappropriate behaviors. Therefore, interventions that focus upon images, fantasies, or internal visual rehearsals should be components of "treatment packages" (Kazdin & Wilson, 1977). The frequencies of occurrence of thoughts can be modified by self-reinforcement or punishment. Visumotor behavioral rehearsal (Suinn, 1975) and thought stopping (see Mahoney, 1974) can be used to reprogram these covert behaviors. Interventions with this factor are primarily behavioral counseling endeavors; therefore, relevant resource persons should be consulted.

Interventions with Emotion usually will not be student- or instructor-managed. Skilled mental health practitioners should conduct the treatment procedures required to ameliorate emotional behaviors and physiological symtoms. Systematic desensitization (Wolpe, 1973) and anxiety management training (Suinn, 1977) represent two potentially useful techniques. Relaxation training procedures (see Lazarus, 1971) can be learned by instructors and students. Thus, relaxation as prophylaxis can be conducted in the classroom. Similarly, guided imagery (Crabbs; 1979; Kelly, 1974), a technique concerned with the thought factors, may be undertaken as a preventative measure.

While interventions are selected to meet current individual career development needs, preventive strategies can be offered to groups of students without significant attention to assessment. Many career education programs offer a variety of occupational information and personal skill building exercises. Preventive exercises include values clarification (e.g., Simon, Howe, & Kirschenbaum, 1972), life coping skills training (Adkins, 1974) and other psychological education efforts (see Alschuler, Ivey, & Hatcher, 1977). Preventive strategies tend to exercise the factors which receive little attention in interventions.

The practical design of career development learning experiences requires matching Need Codes contained in group Career Development Plans or Individual Career Education Plans with the Application Codes of activities and exercises. The format of activity and exercise sheets is discussed in Table 3.

Table 3

Format for Learning Experiences

Design Element (Outline Item)	Example	Description
SELECTION CRITERIA		
Suggested Prerequisite Activity/ Exercise (IA)	E-1	The first "Emotion" activity is a suggested prerequisite for this activity.
Preferred Application (IB)	4.2	This activity is designed for individuals with a 4.2 Need Code (Interpersonal Relations, Self-Talk).
Alternate Application (IC)	4.1, 4.3	The activity is also suitable for persons with 4.1 or 4.3 Need Codes.
Related Application (ID)	NA	Not applicable
Suggested Follow-up Activity/ Exercise (IE)	s-1	The first "Self-Talk" exercise is suggested follow-up for this activity.
ADMINISTRATIVE CRITERIA		
Number of Participants (IIA)	Large Group	This activity is best offered to a group of 30+ students.
Estimate of Time		
Instructor Preparation (IIB1)	60 minutes	About 60 minutes will be required to prepare for this activity
Student involvement (IIB2)	50 minutes	This activity will require approximately one 50 minutes class meeting.
Location of Activity (IIC)	classroom	The activity should be conducted in the classroom.
List of Required Resources (IID)		Most activities will include an Instructor Information Sheet, and a Student Handout. Each activity/ exercise sheet includes space for other resources. Usually, Pre-treatment Assessment, Post-treatment Assessment, and References are listed.

(Continued)

Table 3 (Continued)

Design Element (Outline Item) Example	Description
DESIGN CRITERIA	
Objective (IIIA)	A behavioral or "Minimal Effectiveness Level" (MEL) objective is specified.
Directions (IIIB)	Very specific directions for conducting the activity are provided. The instructions relate to the content and the process of the activity or exercise.

The exemplary activities and exercises of this Instructional Resource Guide follow the format cited in Table 3. Evaluation of student progress is a built-in feature of most activities. Effects of multimodal career education can be determined at any point in the course or instructional effort.

Student Evaluation

One of the most important features of career education is insuring accountability and relevance. Only by periodically reviewing the progress of the individual student and the class do the effects of multimodal career education emerge. Assessment of student progress requires comparing the frequencies of career development behaviors or scores on certain psychometric instruments measured before the intervention with those measured after the intervention (see Final Report). The assessments may occur immediately after a given component (activity post-test), after completion of the course or program (post-test), or after a specified period of time (follow-up).

Based upon the results of the quasi-experimental trial of selected activities, some outcomes seem more important than others. The outcome measures used in the trial (see Appendix D) are generally suited to evaluating student progress. Changes in the stereotypical occupational scales (Social, Intellectual, and Artistic) on the Vocation Preference Inventory (VPI) could indicate movement to a career commitment to nursing. Increases in Masculinity and Status Scale scores would also indicate beneficial gains.

Increases in assertiveness as measured by the Rathus Assertiveness Scale and Factor E of the Sixteen Personality Factor (16 PF) test are strong indicators of program success. Changes on the Bem Sex-Role Inventory and Attitudes Toward Women Scale toward greater role flexibility would demonstrate good outcomes of training, as well. Similarly, the Work and Family Orientation scale is a strong measurement of readiness of the nursing student to commit to the demands of school and workplace.

The 16 PF is probably a sound exit measure to determine general tendencies after extended exposure to multimodal career education. However, the test should not be used to measure personality change over time since modification of personality traits is not a stated goal of multimodal career education for nursing students. In fact, scores on some of the 16 PF variables should probably be reviewed more to determine potential adverse effects (e.g., increases in radicalism) than to assess program gains.

The Nursing Self-Talk Log is good example of systematic self-report of important cognitive behaviors. In most applications of multimodal career education, some ongoing measure of cognitive behaviors, such as self-talk or attitude, should be taken. This approach insures attention over time to subtle changes which may or may not be related to involvement in the multimodal career development activities. Coding of behaviors during class by a trained observer allows measurement of significant enabling skills such as frequencies of questions, comments, and self-disclosures.

Another measure of student progress is attainment of the goals and objectives included in the course outline (see Appendix G). The design of any application of multimodal career education should incorporate specific behavioral objectives for relvant areas. Tests of concept mastery are useful and traditional student evaluations. However, assessments of mastery in each of the eight modalities should be secured. Many of these assessments cannot be meaningfully measured by a paper-and-pencil instrument.

Preparation of a Multimodal Career Development Chart (Appendix E) is a strong summary assessment which has considerable face validity. This technique is especially potent for social validation of gains. Verification of the social value or significance of observed changes is increasingly a concern in behavioral assessment because apparent gains (e.g., in test scores) may lack clinical or real-life meaning.

Multimodal Career Development Resources

A variety of exemplary instructional resources are offered in the following pages. The course outlines provide a model for specifying student objectives and arranging the course components, or multimodal career development activities and exercises. Then a series of activities and exercises are presented. These activity/exercise sheets were useful in constructing the curriculum for the quasi-expermental trial. Additional activities, exercises, and related resources have been developed. They are available from the project director at the following address.

Stephen Southern
Department of Counseling Psychology
Second Floor, Weiss Hall
Temple University
Philadelphia, Pennsylvania 19122

Psychology 1201: Personal Development for Nursing Students

Exemplary Course Outlines

Psychology 1201: Personal Development for Nursing Students

The following outline briefly describes the major characteristics of Psychology 1201. This course is special in two respects: a new "multimodal career education" curriculum is used, and the instruction is directed to the unique concerns of nursing students. The purpose of the course, goals and objectives, units of instruction and class requirements are described below.

Purpose of the Course

The purpose of this course is to promote academic, occupational, and personal gains among nursing students through exposure to an integrated program of assessment and psychological education. As a personal development course, a major aim of instruction is to provide learning experiences which meet individual needs in the areas of educational and occupational information, career exploration and planning, interpersonal relationships and communication, decision-making and problem-solving, and job acquisition and maintenance.

Goals and Objectives

The course uses the group format to attain goals and objectives for each class member. Various instructional approaches are used including lecture, group discussion, demonstration, audio/visual presentation, individual exercise, group activity, and behavioral rehearsal. Exercises and activities involve reading, role playing, self monitoring, interacting, questioning, observing, test taking, and reporting. Individual assessment and counseling are arranged as needed to support the psychological education and skills training that comprise the course. In order to insure that student needs are met, the effects of the components of the course are determined by ongoing evaluation. Based upon data gathered and interpreted after each class meeting, the process and content of the course is determined. General goals and specific objectives are organized according to categories related to the purpose of the course.

A. Educational and Occupational Information

1. To orient the student to programs and services of Odessa College
    a. After completing the course, the student should be able to identify selected sources of information at Odessa College by scoring at least 90 percent correct on an objective test.
    b. After completing the course, the student should be able to state each of the steps in the registration process.
    c. After completing the course, the student should be able to write a definition of "personal development" that is rated as accurate and sufficient by the Director of Counseling.
    d. After completing the course, the student should be able to state at least two examples of prerequisite courses from programs other than nursing.
    e. After completing the course, the student should be able to complete in writing an individual educational plan which includes present career ladder nursing requirements as well as continuing education needs for advancement in the profession.
2. To promote the student's acquisition of basic educational and occupational information skills.
    a. After completing the course, the student should be able to answer in writing specific questions regarding allied health professions by locating and using at least two references or resource materials.
    b. After completing the course, the student should be able to use, according to the instructions, the Dictionary of Occupational Titles (DOT) or the Occupational Outlook Handbook (OOH) as determined by observations of the instructor.
    c. After completing the course, the student should be able to demonstrate gains in study skills as measured by improvement upon pretest scores on the Effective Study Test.
    d. After completing the course, the student should be able to provide the address of at least one professional organization related to the practice of nursing.

   e. After completing the course, the student should be able to write, during a ten minute period, at least two paragraphs regarding educational/occupational information which contains no more than three grammatical or spelling errors.

B. Career Exploration and Planning

1. To encourage the student's understanding of the concept "career"

   a. After completing the course, the student should be able to describe the interaction of supply and demand in the labor market.

   b. After completing the course, the student should be able to identify at least two alternative occupational choices which are related to nursing.

   c. After completing the course, the student should be able to specify two or more personal interests, needs or values that are satisfied by an occupational choice.

   d. After completing the course, the student should be able to describe at least one personal image or fantasy that contributed to an interest in nursing.

   e. After completing the course, the student should be able to write a professional advancement plan which is rated as complete and comprehensive by the class members.

2. To enable the student to recognize developmental and socioeconomic factors involved in a career.

   a. After completing the course, the student should be able to describe the interaction of supply and demand in the labor market.

   b. After completing the course, the student should be able to write a brief occupational biography of an individual who works (or worked) in nursing or an allied health profession.

   c. After completing the course, the student should be able to compare and contrast the status of the nursing profession with the status of at least one other profession.

   d. After completing the course, the student should be able to rank in descending order of importance the influence of the following factors in a personal career choice: income, prestige, location, working hours, ethnic group or culture, security, and advancement.

   e. After completing the course, the student should be able to identify, when presented with an example or case, at least one point in time in which a career decision is required.

C. Interpersonal Relationships and Communication

1. To promote the student's acquisition of personal and professional relationship skills.

    a. After completing the course, the student should be able to discriminate between assertiveness and nonassertiveness or aggressiveness in describing a conflict with another.

    b. After completing the course, the student should be able to demonstrate gains in assertion skills as measured by increases in pretest frequencies of questions, requests, and task-oriented comments in the classroom setting.

    c. After completing the course, the student should be able to explain the importance of cooperation in health services delivery.

    d. After completing the course, the student should be able to demonstrate gains in social skills as measured by increases in pretest frequencies of involvement in personally satisfying social events (dating, attending athletic programs, meeting friends for lunch, joining a club, etc.).

    e. After completing the course, the student should be able to describe the professional relationship of the physician and the professional nurse.

2. To promote the student's acquisition of communication skills.

    a. After completing the course, the student should be able to describe in writing at least four categories (core dimensions) of facilitative communication.

    b. After completing the course, the student should be able to record on a checklist frequencies of selected verbal behaviors presented in a videotape sample.

    c. After completing the course, the student should be able to demonstrate at least two nonverbal communication behaviors.

    d. After completing the course, the student should be able to write an operational definition of "empathy."

    e. After completing the course, the student should be able to conduct a cognitive behavioral probe of a specific personal problem, identifying classes of positive and negative self-talk.

D. Decision-Making and Problem-Solving

1. To enable the student to engage in effective decision-making.

    a. After completing the course, the student should be able to list and describe in writing all factors in the multimodal career education model.

b. After completing the course, the student should be able to discuss the advantages and disadvantages of first impressions in person perception.

c. After completing the course, the student should be able to specify the steps in effective decision-making.

d. After completing the course, the student should be able to develop in writing a personal model for decision-making.

e. After completing the course, the student should be able to eliminate at least one time-consuming event which does not satisfy personal interests, values, or goals (i.e., a "must").

2. To enable the student to engage in effective problem-solving.

a. After completing the course, the student should be able to apply the problem solving approach of D'Zurilla and Goldfried to a personal concern.

b. After completing the course, the student should be able to apply the problem-solving approach of D'Zurilla and Goldfried to an academic/occupational concern.

c. After completing the course, the student should be able to design a self-management intervention and a self-contract for a lifestyle or adjustment problem.

d. After completing the course, the student should be able to complete during a group discussion an applied behavior analysis of a specific lifestyle problem.

e. After completing the course, the student should be able to apply at least one stress management technique in the home.

E. Job Acquisition and Maintenance

1. To promote the student's acquisition of job finding and interview skills.

a. After completing the course, the student should be able to locate a potential job in the classified advertisements or a professional journal.

b. After completing the course, the student should be able to complete an error-free employment application, or resume, and a cover letter.

c. After completing the course, the student should be able to complete a hypothetical job interview with no more than four errors as determined by the instructor.

d. After completing the course, the student should be able to design and explain a personal record keeping/time management system for job leads, interviews, deadlines, and related concerns.

e. After completing the course, the student should be able to rank potential jobs in terms of desirability according to the following factors: skill requirements, salary, location, hours, fringe benefits, working conditions, physical or mental requirements, advancement potential, and degree of supervision.

2. To promote the student's acquisition of job maintenance skills.

   a. After completing the course, the student should be able to describe the "dress for success" approach.

   b. After completing the course, the student should be able to identify at least two key factors in maintaining good relationships with co-workers.

   c. After completing the course, the student should be able to demonstrate negotiation techniques with no more than two errors as determined by the instructor.

   d. After completing the course, the student should be able to demonstrate skill in asking for a raise or change in working conditions as determined by the instructor's rating of a role-playing situation.

   e. After completing the course, the student should be able to identify at least two factors involved in efficient career advancement within a specific health services delivery setting.

Psychology 1201.995 - "Personal Development" - Fall 1980

Instructors:	Karon Topper, ext 217 Office Hours: M,W - 11-1 T,Th - 8-9 M - 5-8 pm Or By Appt.
Ann Winn, ext 350 Office Hours: M-Th - 10-12 M,W,Th - 2-4	

Steve Southern, ext 217
Office Hours: By Appointment

COURSE DESCRIPTION

The purpose of this course is to teach skills which will aid students in dealing effectively and efficiently with the demands of their schooling in particular and their life situatuions in general. In addition to the activities described in the bulletin, the course will include instruction designed to build skills in educational planning, studying, career planing, relationship enhancing, problem-solving, and coping. The major instructional methods which will be used are brief lecture, group discussion, demonstration, individual assignment, structured activity, and behavioral rehearsal. Exercises and activities involve reading, role playing, self-monitoring, interacting questioning, observing, test taking, presenting, and reporting. Because this course is developmental in nature, attendance is enthusiastically encouraged.

COURSE COMPONENTS

The following sequence of instructional units reflects the direction of the course:

I. Assessment: administration and interpretation of psychological tests. After completing this component, the student should be able to state the relationships among test data, personal exploration, and lifelong development.

II. Study Skills: presentation of techniques which improve note-taking and test-taking abilities. After completing this component, the student should be able to demonstrate at least one new, effective study skill. (TEST I)

III. Orientation: explanation of Odessa College programs, services, and regulations. After completing this component, the student should be able to identify concepts and factors that are crucial to survival and success in college.

IV. Multimodal Career Assessment: investigation and application of the multimodal approach to career development. After completing this component, the student should be able to state at least one primary and one secondary infulence upon personal career choice. (TEST II)

V. Stress Management: acquisition of skills and knowledge that are necessary to cope effectively with tension and anxiety. After completing this component, the student should be able to demonstrate at least one stress management technique.

VI. Assertiveness: introduction to assertiveness skills and their importance in personal development and professional effectiveness. After completing this component, the student should be able to distinguish between assertive, nonassertive, and aggressive behavior.

VII. Communication: discussion of verbal and non-verbal communication. After completing this component, the student should be able to provide a definition for "effective communication."

VIII. Problem-Solving: presentation of stages in problem-solving After completing this component the student should be able to list the stages of problem solving.

IX. Career Development: discussion of career opportunities in nursing and related professions. After completing this component, the student should be able to outline necessary steps in completing her/his terminal career objective. (TEST III)

COURSE REQUIREMENTS

Three evaluation tools will be used to determine student grades:

I. Written assignments: number of completed assignments ÷ number of assignments assigned. Counts as 1/3 of grade.

II. Tests: average of three tests given as indicated on the course outline. Counts as 1/3 of grade.

III. Project or Paper: topic to be mutually agreed upon by student and instructor. Counts as 1/3 of grade.

A = at least 90%
B = at least 80%
C = at least 70%
D = at least 60%
I = less than 60% and completion of one test
F = failure to withdraw from course or renegotiate contract

Exemplary Activities

The activities and exercise inculded on the following pages were used in conducting the quasi-experimental trial of the curriculum (see Final Report). The activities are listed below in the order in which they are presented. The BEST IDEA acronym guided their arrangement in this resource guide.

Activity/Exercise Code	Title
B-1	STUDY SKILLS TRAINING
B-2	HOW TO TAKE GOOD NOTES
E	None Included
S-1	PROBLEM SOLVING & DECISION MAKING
S-2	EDUCATIONAL PLANNING
s-1	SELF-CENTERING
T-1	CAREER EXPLORATION
t-1	CONCEPT TREES
I-1	INTRODUCTION TO ASSERTION
I-2	ASSERTION TRAINING
D-1	MULTIMODAL CAREER EDUCATION
E/S-1	SEX ROLE STEREOTYPING
A-1	STRESS MANAGEMENT

STUDY SKILLS TRAINING

I. SELECTION CRITERIA

A. Suggested Prerequisite Activity/Exercise	D-1
B. Preferred Application	2.1
C. Alternate Application	2.3
D. Related Application	2.4
E. Suggested Follow-up Activity/Exercise	B-2/t-1

II. ADMINISTRATIVE CRITERIA

A. Number of Participants	Large Group
B. Estimate of Time	
1. Instructor preparation	60 minutes
2. Student involvement	60 minutes
C. Location of Activity	classroom
D. List of Required Resources	
1. Instructor Information Sheet	v
2. Student Information Sheet	NA
3. Student Handout	
a. Finding a Place to Study	ix
b. Checkmark Technique	xi
4. Assignment Sheet	xiii
5. Supplies-Equipment List	NA
6. Pre-treatment Assessment	

a. Effective Study Test (Brown, W.F. Effective Study Test. College Level. San Marcos: Effectiva Study Materials, 1972.

b. Survey of Study Habits and Attitudes. (Brown, W.F., & Holtzman, W.H. Survey of study habits and attitudes.

New York: The Psychological Corporation, 1967.

7. Post-treatment Assessment

Same as Pre-treatment Assessment

8. Follow-up Assessment

Same as Pre-treatment and Post-treatment Assessments

9. References

The suggested references are cited in the attached instructor and student materials.

III. DESIGN CRITERIA

A. Objective: After completing the activity, the student should be able to demonstrate at least one effective study skill.

B. Directions: Read the Instructor Information Sheet, the Student Handouts, and the Assignment Sheet. If a follow-up exercise (t-1) is used, then become acquainted with it, as well. Secure ample copies of the handouts and the assignment sheets (including exercise t-1, if applicable). Since pre-treatment and follow-up assessments are strongly encouraged, obtain sufficient copies of either the Effective Study Test or the Survey of Study Habits and Attitudes for use as diagnosis and/or outcome measures.

Prepare a brief lecture based upon the material contained in the Instructor Information Sheet. Present the lecture using concrete examples or demonstrations as needed. Distribute copies of the "Checkmark Technique" handout. Read the instructions with the students and then ask them to try the technique by using one of their textbooks. Allow the activity to continue for approximately five minutes before initiating discussion.

Next, distribute copies of the "Finding a Place to Study" handout. Ask students to spend about five minutes reading and completing the form. When most students have finished, call upon individuals to report at least one place that is preferred for studying and how it "measured-up" to other study locations. Discuss the value of the exercise and try to secure verbal commitments from some students to actually use this data in selecting places to study.

As a homework assignment, distribute copies of "Time Management." Emphasize the importance of using this technique, pointing out that the study skills which have been discussed cannot be mastered without practice in the home and other study settings. If desired, the instructor can link this activity with an individual exercise, "Concept Trees" (t-1) by distributing related handouts.

Assessment of gains in study skills should be completed after all skills training is completed. The present activity is the first in this area; therefore, the Pre-treatment Assessment should be completed at the start of class.

INSTRUCTOR INFORMATION SHEET

Walter Pauk (1974) calls forgetting the single most important problem encountered by students. Research indicates that the greatest amount of forgetting takes place immediately after learning, and after that, the rate of forgetting slows.

The most prevalent thoery of forgetting is interference theory. This theory states that new learning blurs old learning, and that earlier learning inhibits memory of later learning.

Pauk outlines several learning principles associated with memory. The first is interest. We learn best what we a actively interested in or motivated to learn. Students can increase their interest in subjects or develop "artificial" interest by seeking alternative modes of study. These include tutoring, other texts, small groups, etc.

A second important principle is that of selecting and rejecting. It is impossible to learn "everything in the book." Thus, the student can distill the volumes of information he or she encounters into manageable units.

Attention to the subject at hand is vital to memory. Often students develop a habit of passivity, managing to attend class, take notes, study, and take an exam without ever becoming actively involved in the process. Attending behavior can be enhanced by minimizing external distractions, i.e. finding a well-lighted, quiet place to study. (See Student Handout, "Finding a Place to Study" and "Checkmark Technique.")

One way of enhancing your ability to memorize is to organize the material meaningfully. (See Exercise t-1--"Concept Trees.") Research shows that we are best able to remember seven, plus or minus two, bits of information at a time. When we have more information than this to remember, it is helpful to break it down into categories and sub-categories. The more effectively we are able to organize material into hierarchies, seeing the relationships between divisions and sub-divisions, the more likely we are to remember it.

Reciting enhances memory. It is helpful to study the material to be learned, cover it, and then attempt to recite it. Saying aloud the main ideas of what is being studied in one's own words helps to solidify the ideas in the memory.

Frequent reviewing is helpful in memorizing. Reviewing one's notes before attending the next class in a given subject helps to develop a chain of association of ideas from class meeting to class meeting. "Cramming" is a crisis intervention technique, not an effective study habit!

There are several memory techniques for enhancing short term memory. These are especially good in test taking because they can help overcome the effect of tension on memory. Such techniques should never be used as a substitute for learning the material, however.

Building vivid mental pictures is one memory enhancer. We remember best what we see. By actively picturing ideas or materials to be learned, i.e. "seeing" them in our heads, we find it easier to remember what we have studied.

Mnemonic devices are one memory technique. An example is the jingle:

"i" before "e" except after "c"
or when sounded as "a" as in
neighbor and weigh.

The ancient Greeks used an association technique for recalling major points in their oratories. They would associate each idea with a part of a room or area with which they were familiar. One might use the living room for example. If as you step into the living room, you see the couch, then you would associate the first major point with your couch. Moving around the room, successive points are associated with identifiable parts of the room. Thus, when you wish to recall the items to your memory, you simply "mentally" take a trip around the room and the items associated are easily recalled.

STUDENT HANDOUT

Finding a Place to Study

Concentration is a major problem for many students. Frequently, the problem is one of finding a place to study where there are no external distractions. External distractions are those that originate outside the body. Telephone calls, visitors, and noises are examples. Concentration may be difficult when there are too many such distractions present. This checklist will help you analyze distractions in the places you study.

List the three places where you usually study in the order you use them most:

A____________________________ B__________________________ C________________________

Now check the column that applies to or describes each of the places.

T = True F = False

		PLACE A		PLACE B		PLACE C	
		T	F	T	F	T	F
1.	Other people often interrupt me when I study here.						
2.	Much of what I can see here reminds me of things that don't have anything to do with studying.	T	F	T	F	T	F
3.	I often hear radio or TV when I study here.	T	F	T	F	T	F
4.	I often hear the phone ringing when I study .	T	F	T	F	T	F
5.	I think I take too many breaks when I study here.	T	F	T	F	T	F
6.	I seem to be especially bothered by distractions here.	T	F	T	F	T	F
7.	I usually don't study here at a regular time each week.	T	F	T	F	T	F
8.	My breaks tend to be too long when I study here.	T	F	T	F	T	F
9.	I tend to start conversations with people when I study here.	T	F	T	F	T	F
10.	I spend time on the phone here that I should be using for study.	T	F	T	F	T	F
11.	There are many things here that don't have anything you do with study or school work.	T	F	T	F	T	F
12.	Temperature conditions here are not very good for studying.	T	F	T	F	T	F
13.	Chair, table, and lighting here are not very helpful for studying.	T	F	T	F	T	F
14.	When I study here I am distracted by certain individuals (i.e., girl/guy watching).	T	F	T	F	T	F

(Continued on back)

	PLACE A		PLACE B		PLACE C	
	T	F	T	F	T	F
15. I don't enjoy studying here.						
16. I take too many breaks for food here.	T	F	T	F	T	F

Now total the check in each column. The column which has the most "false" check may be the least distracting place to study. Try to plan your day so that you do as much of your work as you can there.

STUDENT HANDOUT

Checkmark Technique

One of the most frequent complaints of students is inability to concentrate. Walter Pauk (1974) suggests a technique to help students concentrate while studying.* Before you begin reading your text or studying for an exam, pull out a blank sheet of paper and place it one your study area. Everytime you become aware that your attention is wandering, make a check on the piece of paper. This will remind you to redirect your attention to what you are studying. At first you may have many checkmarks on your paper, but with practice, the number will decrease.

*For more information about study techniques, you may wish to see one of the following sources:

Carman, R.A., & Adams, W.R. _Study skills: A student's guide for survival._ New York: John Wiley & Sons, 1972.

Pauk, W. _How to study in college_, 2nd ed. Boston: Houghton Miffin Company, 1974.

ASSIGNMENT SHEET

Time Management

Shepherd (1979) suggests that students often have difficulty managing their study time because they have no idea how long it takes to read an assigned number of pages. Each textbook is different in terms of the amount of time required to read a given number of pages. It will be very helpful for you to determine your reading rate for each of your texts. You can do this by recording the amount of time that is required to read several pages and dividing the time by the number of pages. Use the chart below to record this information.

Name of Text	Beginning Time	Ending Time	Total Time	Pages Read	Rate (pages read total time)

HOW TO TAKE GOOD NOTES

I. SELECTION CRITERIA

A. Suggested Prerequisite Activity/Exercise	B-1
B. Preferred Application	2.1
C. Alternate Application	2.3
D. Related Application	2.4
E. Suggested Follow-up Activity/Exercise	t-1

II. ADMINISTRATIVE CRITERIA

A. Number of Participants	Large Group
B. Estimate of Time	
1. Instructor preparation	30 minutes
2. Student involvement	45 minutes
C. Location of Activity	Classroom
D. List of Required Resources	
1. Instructor Information Sheet	NA
2. Student Information Sheet	NA
3. Student Handout	iii
4. Assignment Sheet	NA
5. Supplies/Equipment List	NA
6. Pre-treatment Assessment None. (See Activity B-1)	NA
7. Post-treatment Assessment None. (See Activity B-1)	NA
8. Follow-up Assessment	NA
9. References None. The references for this activity are included on the Student Handout.	NA

III. DESIGN CRITERIA

A. Objective: After completing the activity, the student should be able to demonstrate the Five Rs of effective notetaking.

B. Directions: Read the Student Handout, "How to Take Good Notes." Secure sufficient copies of the handout for the entire class.

Conduct a brief lecture using the handout as the guide. Say "I have provided you a copy of notes which I prepared as if I were hearing my own lecture." Point out the features of the notes which represent good and poor notetaking skills. Discuss the importance of practice in building good notetaking and study habits. End the discussion with an emphasis upon "individualizing" notes. The instructor may wish to administer a post-test (see Activity B-1).

STUDENT HANDOUT

Study Skills Workshop 02-14-80

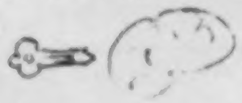
"How to Take Good Notes" Steve Southern

Steve used these headings for the lecture:

I. Steps in Notetaking
II. Five Rs of Notetaking
III. Helpful Hints

I. Steps

PREPARING TO TAKE NOTES	A. Prepare to take notes
(1) Bring paper	(1)"Impt. to bring to each class the paper that is right for you": helps you write notes(e.g., lined paper), helps you organize for later use (e.g., 3 holes for notebook)
(2) Bring pen (pencil causes need to erase)	(2)Impt. to bring pen--several in case run out of ink--DO NOT USE PENCIL BECAUSE WILL WANT TO ERASE INFO. THAT MAY BE IMPT.
(3) Record info. during lecture; review later	(3)Draw line on left about 2½" from edge or think of imaginary line--DO NOT WRITE TO LEFT OF LINE
	This side of page will be used for recording info. during lecture.⟶
⟵	This side of page will be used for review etc.
⟵ REVIEWING	RECORDING ⟶
(4) Review notes 5-10 minutes (association: to link; to form mental connection between ideas)	(4)Before each lecture, take 5-10 minutes to review notes on yesterday's lecture--"helps one form chain of association ✓ between lectures"
RECORDING NOTES DURING LECTURE	B. Record notes during lecture
(1) Make notes complete and clear	(1)Make notes complete & clear enough so they have meaning days later
(2) Outline, paragraph, or rough draft	(2)Not neccessary to outline--may want to use paragraph or roughdraft form

(3) Skip lines	(3)Skip lines to make reading easy & to show shifts in ideas
(4) Write major ideas	(4)Try to capture major ideas rather than word-for-word
(5) Use abbreviations	(5)Use abbreviations that are meaningful for you, example: Steve used quod for "because", a Latin work for "because"
	ABBREVIATIONS GIVE EXTRA TIME FOR NOTETAKING
(6) Write legibly (legible: capable of being read)	(6)Write legibly or at least clearly enough to read later--DON'T SPEND YOUR TIME TRYING TO FIGURE OUR SCRIBBLINGS
	C. Reducing, Reciting, Reviewing, Reflecting after the lecture--what you do with notes after lecture is most impt.--the 4 Rs that follow recording
(1) 4 R's Help memory	(1) are essential to combat forgetting--HELPS MEMORY
(2) Go over notes ASAP	(2)5 R's will will be discussed in next section--for now--
	Go over notes as soon as possible (ASAP) after class (no later that evening after class)
"clean up" notes	Make scribbles more legible, fill in blank spaces, correct spelling, etc./DO THIS IN DIFFERENT COLOR INK
underline in different color ink	Underline key works & main ideas in different color ink, whenever possible
5 R's	II. Five R's of Notetaking
RECORD	A. Record lecture as fully and clearly as possible on this side of page.→
REDUCE	B. Reduce lecture notes after re-reading notes after class, after "cleaning up" notes, after underlining key words and phrases
in left margin (this side)	Jot down key words and phrases on left side of line/ these are same words underlined on this side
key words are cues	these key words & phrases "open the door to memory"
	They are "cues" or "prompts" for remembering. 
RECITE	C. Using the cues to jog your memory, recite the main facts and ideas of the lecture as fully as possible

02-02-90
By writing personal
notes at top I
can focus or gain control
over boredom,

cover up right side read cues only	4 Do this by covering up this side of page with another sheet of paper, then read only cues to remember lecture.
REVIEW	D. Review notes at least 10 minutes each week to keep up course Try to use recite method above, but fill in by reading complete record
REFLECT	E. Reflect on the ideas of lecture by recording own opinions and observations
write on separate sheet or top of same page	Writing reflections on separate sheets of paper or index cards can be useful. Steve likes to write ideas & opinions immediately--on same page--at top of sheet. This method of notetaking is better for me than strict "Cornell" or other system.
	III. Helpful Hints
"trail for thoughts"	A. Draw lines, arrows, boxes, figures etc. to leave a trail for your thoughts see?
Develop personal notetaking style	B. Use notetaking style that is "you"--Notes are for your personal use. You can do anything you want with them (HOWEVER-NOTE SHARING CAN BE GOOD STUDY TECHNIQUE)
Take notes everyday--build habits	C. Take notes in the same manner for every class-- do so every day to build good memory and study habits
No. 1 Problem: lack of memory or concentration	D. Everybody has trouble remembering--"lack of memory or concentration" was No.1 Problem among students at Odessa College according to Needs Assessment

PROBLEM SOLVING & DECISION MAKING

I. SELECTION CRITERIA

A. Suggested Prerequisite Activity/Exercise	I-2
B. Preferred Application	4.2
C. Alternate Application	4.1, 4.3
D. Related Application	2.2
E. Suggested Follow-up Activity/Exercise	A-1

II. ADMINISTRATIVE CRITERIA

A. Number of Participants	Small Groups of 8
B. Estime of Time	
1. Instructor preparation	60 minutes
2. Student involvement	50 minutes
C. Location of Activity	Classroom
D. List of Required Resources	
1. Instructor Information Sheet	NA
2. Student Information Sheet	iii
3. Student Handout	NA
4. Assignment Sheet	v
5. Supplies/Equipment List	NA
6. Pre-treatment Assessment	NA
None	
7. Post-treatment Assessment	NA
None	
8. Follow-up Assessment	NA
None	
9. References	

a. D'Zurilla, T.J. & Goldfried, M.R. Problem solving and behavior modification. Journal of Abnormal Psychology, 1971, 78, 107-126.

b. Horan, J.J. Counseling for effective decision making. North Scituate, Massachusetts: Duxbury Press, 1979.

III. DESIGN CRITERIA

A. Objective: After completing the activity, the student should be aple to apply the problem solving model of D'Zurilla and Goldfried with at least one personal or career concern.

B. Directions: Read the Student Information Sheet and the Assignment Sheet, and review both references if possible. Secure ample copies of the student materials. Become well-acquainted with the five stages of the D'Zurilla and Goldfried model and prepare an example which applies the model.

Distribute copies of "Problem Solving" and provide an overview of the model. Emphasize that the approach represents the culmination of a large review of the literature on effective problem solving. Note that individuals are probably already using some aspects of the technique if they are good at making decisions and solving problems.

After briefly discussing the model, review each of the stages, using the example as a concretization. Then, distribute copies of the assignment to all students. Form small groups of eight students to complete the assignment. Allow 20 minutes for the exercise, then, return to the large group and ask one person from each small group to report the decision or method of solving the problem.

STUDENT INFORMATION SHEET

Problem Solving

I. STAGE I: General Orientation

   A. Many environments, situations, and changes require effective problem solving.

   B. The key to effective problem-solving involves recognizing specific challenges and demands, using emotions and behaviors as cues for decision making, and selecting appropriate plans and strategies for coping with problems in a systematic manner.

II. STAGE II: Problem Definition and Formulation

   A. Define all aspects of the situation operationally

      1. Identify relevant details and circumstances related to the situation and describe them in specific, concrete terms

      2. Consider present events and background information

      3. Take into account internal and external factors that make the situation problematic

   B. Formulate or classify all descriptive elements appropriately

      1. Specify personal goals with respect to the situation

      2. State issues, conflicts, and obstacles that interfere with the attainment of goals

III. STAGE III: Generation of Alternatives

   A. Keeping in mind the previously identified goals and issues, come up with a range of possible solutions for the problem

      1. Choose general strategies for dealing with the problem.

      2. Use a brainstorming technique for generating a range of possible strategies (This technique promotes creativity.)

      3. Follow the "rules" of brainstorming

         a. criticism is ruled out

         b. "free-wheeling" is welcomed

         c. quantity is wanted

         d. combination and improvement are sought

ASSIGNMENT SHEET

Solving John's Problem

John is a 26 year-old nurisng student who is married and has one child. He is a veteran and served as a Medic. While he is skilled in many nursing procedures and is excellent in emergency situations (due to his triage experience), John has encounted some difficulty with the academic courses. He has tried to study hard and remain current in his reading, but he just can't seem to find time to do it all. John was recently informed by his Anatomy and Physiology instructor that he is in danger of failing the course due to poor test grades. The instructor even suggested taht John may want to explore some field beside nursing as a career. John is aware that failing the course could lead to his removal from the nursing program. With only two tests left, what should John to in order to solve his problem?

---

1. What should be John's general orientation to solving this problem?

2. What is the problem? What are John's personal goals?

3. What are some possible strategies for dealing with the problem? (Name at least three.)

4. What would be the consequences of applying each one of the solutions you generated above? Which solution is most likely to meed John's needs and to effectively solve the problem?

5. Assuming that John applies the solution upon which your group agrees, what are some indicators that progress toward solution is being made?

4. Reserve evaluation of the strategies until the next stage.

B. Use the process above to identify specific behavioral tactics after the best possible strategy has been selected in STAGE IV (This is a looping process: (1) generate alternative strategies, (2) select one strategy in STAGE IV, (3) generate specific tactics in STAGE III, (4) evaluate and select one tactic in STAGE IV--continue the process as needed)

IV. STAGE IV: Decision making

A. Select potentially effective strategies and tactics

B. Consider personal values and interpersonal consequences when deciding upon strategies and tactics

C. In selecting the best strategy, focus on the likelihood of resolving the major issues

D. In selecting tactics, the focus should be on the likelihood of effectively implementing the strategy

E. Attempt to maximize the likelihood of positive consequences

V. STAGE V: Verification

A. Observe and record the quantities and qualities of outcomes of tactics

B. Monitor progress toward goals by comparing outcomes to some personal standard.

EDUCATIONAL PLANNING

I. SELECTION CRITERIA	
A. Suggested Prerequisite Activity/Exercise	T-1
B. Preferred Application	3.2
C. Alternate Application	3.1
D. Related Application	2.2
E. Suggested Follow-up Activity/Exercise	None
II. ADMINISTRATIVE CRITERIA	
A. Number of Participants	Large Group
B. Estimate of Time	
1. Instructor preparation	120 minutes
2. Student involvement	120 minutes
C. Location of Activity	Classroom
D. List of Required Resources	
1. Instructor Information Sheet	v
2. Student Information Sheet	xi
3. Student Handout	NA
4. Assignment Sheet	
5. Supplies/Equipment List	NA
6. Pre-treatment Assessment	NA
None	
7. Post-treatment Assessment	
Completion of "Life Career Plan"	
8. Follow-up Assessment	NA
None	
9. References	

a. LaRochelle, D. The nursing profession: New perspectives, new programs, new practices. Unpublished manuscript, 1979 (Available from author at University of Connecticut)

b. Mirin, S.K. (Ed.) Teaching tomorrow's nurse: A nurse educator reader. Wakefield, Massachusetts: Nursing Resources, Inc., 1980.

c. Mitchell, A.M., Jones, G.B., & Krumboltz, J.D. (Eds.) Social learning and career decision-making. Cranston, Rhode Island: The Carroll Press, 1979.

d. Texas Health Careers Program. Health careers in Texas. Austin, Texas: Texas Hospital Association, 1978.

e. U.S. Department of Health and Human Services. A directory of expanded role programs for registered nurses: 1980. Washington, D.C.: Superintendent of Documents, 1980.

f. U.S. Department of Labor. Occupational outlook handbook, 1980-81 edition. Washington, D.C.: Superintendent of Documents, 1980.

III. DESIGN CRITERIA

A. Objectvie: After completing the activity, the student should be able to construct a "Life Career Plan."

B. Directions: Read the Instructor Information Sheet, the Student Information Sheet, the Assignment Sheet, and as many of the references as possible. Secure ample copies of the student materials and resources such as the Occupational Outlook Handbook. Prepare a brief lecture on career as lifelong learning using the Instructor Information Sheet (book review) and Social Learning and Career Decision-Making.

In the lecture, present "career" as a process which spans occupational choice, job acquisition, job maintenance, continuing education, career advancement, and retirement. Emphasize the social learning approach to individual career development formulated by J.D. Krumboltz (in Social Learning and Career Desicion Making). According to this approach, the sequence of career development includes genetic factors (physical features and abilities), instrumental learning experiences (antecedent-response-consequence chains), Self-Observation Generalizations (self-talk, interests, and preferences), task approach skills (career planning, decision-making, and entry-competencies), and occupational activities.

After the lecture on career as lifelong learning, distribute copies of the Student Information Sheet, "Educational Opportunities After the Associate Degree." Depending upon the extent of instructor preparation, expand upon the material by discussing specific programs in Texas, career advancement/continuing education resources, and the career ladder approach.

Distribute copies of the Assignment Sheet, "Life Career Plan," Set a due date and ask students to involve themselves in this exercise since it may determine the extent of their career satisfaction and the quality of their lives.

INSTRUCTOR INFORMATION SHEET **Review**

Social Learning and Career Decision Making. Anita M. Mitchell, G. Brian Jones, & John D. Krumboltz (Eds.). Cranston, Rhode Island: The Carroll Press, 1979, 244 pp. Reviewed by Stephen Southern.

This collection of chapters, which were prepared by leading contributors to career development theory, delivers what is promised by the title. The editors masterfully integrated extant research and practice with Albert Bandura's social learning theory. As the introduction, "In Search of a Comprehensive and Practical Approach to Career Decision Making," by Ivan Charner suggests, the book was designed to reconcile divergent perspectives with the goal of generating career development theory accessible to empirical review and pragmatic applications.

The volume is the product of a major study of the career decision making process undertaken in 1974 by the American Institutes for Research (AIR) for the Education and Work Group of The National Institute of Education (NIE). The research and development program conducted literature reviews, sponsored professional workshops across the country, and commissioned a series of papers which investigated career decision-making topics. Chapter Twelve of the text summarizes the recommendation of the conferences, the workshop papers, and the editors. The chapter describes directions for research as well as resources, including the Careers Research Data Index and the Career Research Data Bank at NIE.

The first chapter presents a consise treatment of the structure and function of theory construction and evaluation. In addition, Waldemar Unruh provides a general overview of current vocational choice and career development theories within the context of social learning theory. The brevity of the chapter represents a strength of the book in the sense that the scope of an overwhelming body of literature was narrowed. However, the brief review of career theories also introduced a minor weakness. Unruh contends that comparing and contrasting existing theories was not a valuable exercise due to the following factors. He suggests that existing models were too specific, highly structured, and loosely connected to warrant review of agreements and disagreements among them. Nevertheless, this review process is commonly accepted in the classic vocational theory texts (e.g. Crites or Osipow). Comparing and contrasting is a frequent instructional approach in vocational development theory courses, as well. Therefore, the integrative value of the work and its utility as a textbook are diminshed.

In Chapter Two, Krumboltz offers an authoritative, yet very readable, account of the developing theory. He discusses the sequence of individual career development including genetic factors (physical features and abilities), instrumental learning experiences (antecedent- response-consequence chains), Self-Observation Generalizations (self-talk, interests, and preferences), task approach skills (career planning, decision-making, and entry competencies), and occupational activities. The general model which is derived from the theory also takes into account the influences of environmental, economic, social, and cultural conditions. The inclusion of these setting factors and referent conditions render the theory compatible with current "multimodal" approaches in behavioral counseling and with the extant sociopsychological theories. The chapter is well-written and humorous at times. Points are developed in a stepwise fashion and key concepts are illustrated by means of charts, figures, and line drawings. Theoretical propositions, illustrative hypotheses, and case studies make a complex, lifelong process understandable.

Anita Mitchell follows-up the theoretical propositions posited by Krumboltz with recent and relevant research findings, in Chapter Three, while Brian Jones and H.B. Gelatt discuss program design and intervention selection implications of the social learning theory in Chapter Four. The illustrations of social learning programs includes direct and indirect interventions in six basic areas.

Chapters Six-Eleven present solicited papers which address various issues related to the social learning theory of career decision making. While Chapters One-Four introduce and develop the social learning viewpoint, the subsequent chapters promote integration of the theory with expert opinion arising from several theoretical perspectives. The papers are not explicit critiques of the social learning model, but the selection and omission of issues or points in each chapter convey the biases of the well-known authors. Thus, the position papers and invited commentaries following each paper contribute to the theory-building aim of the project. Chapter Five is a very brief introduction to the theme and format of the second half of the book.

In Chapter Six, Martin Katz addresses assessment of career decision making. The discussion of his Simulated Occupational Choice (SOC) procedure is a timely concern given the rise of behavioral assessment and vocational evaluation. Samuel Osipow in Chapter Seven and Dale Prediger in the subsequent commentary, consider important issues in interest development as they relate to the decision making process. Important distinctions between activity and occupational preferences, as well as between intrinsic and extrinsic interests are made. In Chapter Eight, Rue Bucher describes unplanned social constraints and career networks which act as "socializers" of persons. In-depth analyses of occupational barriers and opportunities emerge as important elements of career decision making. In a somewhat unrelated, but interesting paper, Stephen Dresch provides a quasi-economic viewpoint which holds more for the researcher than for the practitioner.

Similarly, Chapter Ten does not contribute much to the elaboration of the social learning theory. Rather, David Tiedeman and Anna Miller Tiedeman condense a wealth of career development literature, including their own work, into an understandably abstract paper. By discussing existential choice and consciousness, self-constructionism, and decision making education, the authors provide the nonbehavioral perspective which some readers will appreciate for the sake of balance. Finally, Russell Rhyne presents in Chapter Eleven a futures approach to the review of careers. "Career Decision Making in a Fluid Situation" is an interesting account of the interaction of cultural-social influences and "human nature" suggesting some cognitive behavioral formulations (see Mahoney), yet not relating specifically to the elaboration of the social learning model.

This book would be an excellent selection as a reference for the behaviorally-oriented counselor who is concerned about career development or personal practice theory contruction. It is a good resource for research and development in career education. In addition, Social Learning and Career Decision Making is recommended as a good supplementary textbook for a vocational theories course. While I was obviously impressed with this report of the AIR project, I wonder about the extent of its dissemination among the vocational guidance community.

STUDENT INFORMATION SHEET

Educational Opportunities After the Associate Degree

The following facts and observations were drawn from a guest lecture by Ms. Betty Jackson, Nurse Clinician and Odessa College Career Ladder Nursing Program Faculty Member.

There are numerous educational opportunities for RNs who receive the Associate Degree. Most of the opportunites discussed below relate to the situation in Texas. If you want to learn about opportunities in other states, contact their state boards of nurse examiners for specific details.

You may decide that you want to be someone other than a floor nurse at some point in your career. The first step toward being recognized as a professional nurse is receiving the baccalaureate degree in nursing. Increasingly, state nurses' associations are lobbying for the Bachelor's degree as the entry-level credential in nursing. Those who graduate from hospital diploma schools and community colleges in the future may be classified as technicians or nursing assistants. Persons who receive the baccalaureate degree would be considered professional nurses. If such a change were to occur in Texas, then the chances are good that nurses holding the Associate Degree would be "grandfathered (grandpersoned) in" as professionals without additional required education.

Just as state associations and professional organizations seek the baccalaureate as the entry-level credential, they want the degree to be awarded in nursing rather than related fields. The contention is that if nursing is a profession then it has unique knowledge and skills which must be learned. Addditional undergraduate education is not enough. In the past, many nurses were able to advance their careers by receiving a Bachelor's degree in psychology, a life science, or another field. This practice will decline in the future.

Five schools in Texas accept the career ladder and multiple entry-exit approaches to nursing education. That is, they promote the upward mobility of experineced nurses by offering special curricula for graduates of Associate Degree programs. These schools (some are called Step II and others are 2+2 schools) require two years of study beyond the two years which transfer with the Associate Degree. They may reqire additional coursework in basic academic subjects to meet core curriculum requirements of 12 hours in English, 6 hours in history, 6 hours in government, and elective or concentration hours in psychology, sociology, chemistry, and biology. The programs also offer additional nursing training in physical assessment, crisis intervention, and research. The Texas Nurses Association has encouraged the inclusion of management or business administration coursework.

To some persons, upgrading educational requirements is not appropriate during a critical nurse shortage, such as the one we are presently experiencing in Texas. However, the proposal for additional nursing education is really more directly related to nursing's striving for professional recognition. The proposal was introduced prior to the current shortage, by the way. In addition, the research regarding the benefits of additional training is mixed. In several recent studies, there were no observed differences in the roles or competencies of RNs graduating from hospital, Associate Degree, or baccalaureate programs.

One of the most promising developments associated with the upgrading of the nursing profession is the emergence of the nurse practitioner. The medical profession is oriented toward cure and the physician treats disease. Nursing is based upon care and the nurse practitioner is prepared to address the total need of the patient--including, financial, social, and psychological needs, in addition to physical needs. There are three nurse practitioner training programs in Texas. They require the Bachelor's degree and one year of training, usually three months of didactic instruction and nine months working with a practitioner.

Another educational opportunity is training to become a nurse anesthetist. Two of the three Texas schools that offer this training require the Bachelor's degree for admission. Programs usually require two years of training in anesthesia, x-ray, and psychiatric procedures.

The nurse clinician is an emerging specialization that offers advancement opportunities for additional education. A number of univsersities in Texas offer graduate education which prepares a person for practice as a clinician. In the Master's level training, you would take additional coursework in the area of your clinical specialty--for example, pediatric or psychiatric nursing. Finally, one can pursue the doctorate (or Ph.D.) in nursing at two Texas universities. The doctorate prepares a specialist to teach or conduct research. Eventually, the doctorate may be considered the terminal degree in administration and clinical practice, as well.

ASSIGNMENT SHEET

On the timeline below, note significant dates or years in which you reached important decisions about nursing. Include, at least, the age you decided to pursue nursing as a career, any major school or work experiences that supported your decisions, and any obstacles you overcame to pursue your career interest.

On the remainder of the timeline, record at least five milestones related to job acquisition, job maintenance, continuing education, career advancement, and retirement. Write at least one sentence describing your educational or career plans for each time period.

pre-nursing

at least five milestones

Decided to pursue nursing age: ____

Death Age: ____

1. About getting a job: ______________________________

2. About keeping a job: ______________________________

3. About continuing education: ______________________________

4. About advancing my career: ______________________________

5. About retiring: ______________________________

SELF-CENTERING

I. SELECTION CRITERIA

A. Suggested Prerequisite Activity/Exercise	A-1
B. Preferred Application	1.2
C. Alternate Application	1.1, 1.3
D. Related Application	4.2
E. Suggested Follow-up Activity/Exercise	I-1

II. ADMINISTRATIVE CRITERIA

A. Number of Participants	Individual
B. Estimate of Time	
1. Instructor preparation	30 minutes
2. Student involvement	60 minutes
C. Location of Activity	Home
D. List of Required Resources	
1. Instructor Information Sheet	NA
2. Student Information Sheet	NA
3. Student Handout	iii
4. Assignment Sheet	vii
5. Supplies/Equipment List	NA
6. Pre-treatment Assessment None	NA
7. Post-treatment Assessment Completion of assignment	NA
8. Follow-up Assessment Demonstration of competency	NA
9. References	NA

III. DESIGN CRITERIA

A. Objective: After completing the exercise, the student should be able to demonstrate use of the "Self-Centering" form in reaching a personal decision.

B. Directions: Read the student materials and secure ample copies for all who will receive the assignment. Establish a due date for return of the Assignment Sheet.

In presenting the assignment, emphasize that people often waste time "muddling" with personal decisions because of excessive concern about what others want or expect one to do. The "musts" and "oughts" that direct the lives of many are often based upon inaccurate assessments of the wishes of others. Note that we can never really know what someone wants because language is a poor tool for "getting inside the head" of a person. People sometimes incorrectly assume that the other knows what she or he wants. Emphasize that we are able to determine personal needs, interests, and values which can be used to improve decision-making. When a person makes decisions that promote individual interests then that person is more likely to be helpful in enabling others to pursue their interests.

STUDENT HANDOUT

s-1-iii

SELF-CENTERING

Needs, Interests, and Values									
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
SUM									
RANK									

s-1-v

STUDENT HANDOUT

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
6:00-7:00							
7:00-8:00							
8:00-9:00							
9:00-10:00							
10:00-11:00							
11:00-12:00							
12:00-1:00							
1:00-2:00							
2:00-3:00							
3:00-4:00							
4:00-5:00							
5:00-6:00							
6:00-7:00							
7:00-8:00							
8:00-9:00							
9:00-10:00							

ASSIGNMENT SHEET

We sometimes incorrectly assume that others know what is best for us. Decisions and actions are based upon what one thinks another person wants or expects. These "musts, "oughts," and "shoulds" often restrict one's ability to satisfy individual interests, needs, and values. Career development and personal adjustment depend upon attaining a sense of control in life and a freedom to choose. Since you can never really know what is "going on inside someone else's head," you may or may not meet their expectations. You can become aware of your own needs and values and should use these to guide your decison-making and action.

The purposes of this exercise are to create awareness of how little time you invest in personally rewarding and relaxing activities and to provide you a method for eliminating at least one "must" or "should" from your busy life. By "self-centering" you can gain the control that is essential in stress management and career development.

1. Take the weekly time finder that your instructor has given you and record all the "work" that you do in a typical week. "Work" includes paid employment, time in school, and involvement in any activity which you belive that you must do, but really don't like to do.

2. After recording your work on the time finder, notice how little time you invest in personally pleasing and rewarding activities. Many people "work" during most of their waking day.

3. In order to remain psychologically and physically healthy, you must balance work with play, the things that you really like to do. Usually, "play" satisfies individual needs, interests, and values.

4. Make a deal with yourself. You owe yourself at least one hour per day for pleasant, relaxing, and personaly rewarding activities. If you do not spend at least one hour in play, then you can accrue this time and spend it the next day, if possible. By the end of the week, you can choose to use this time in a block so that your weekend enables you to recover from the week's work.

5. Remember that the time you accrue is your time. It should be invested in activities that you value. Taking the kids to Six Flags Over Texas may be play for them,yet, work for you.

6. The second part of this exercise involves eliminating at least one "must" in order to create more time for relaxation. Take out the "Self-Centering" form.

7. In the column on the left labeled "Needs, Interests, and Values," record in any order the things that really matter to your. Be as specific as possible in listing activities and goals. For example, one person may list "Being outdoors," another may write "Advancing my career," and still another may record "Driving high-performance automobiles on the weekend."

8. Along the top of the form, on the slanted lines, write several (e.g., five to nine) activities that you believe you must do, but you really don't want to do. For the purposes of this exercise, record "musts" which are relatively "tame" or minor. That is, "washing the dishes" is more appropriate than "remaining married."

9. When you have listed yourvalues and your "musts," you are ready to determine which of the "musts" seem to better meet personal needs and interests.

10. Look at each value (in turn) and determine if the listed "musts" satisfy or help in attaining it. Rank each "must" according to how well it fits with personal needs and interests. Review the example below.

Needs, Interests, and Values	wash dishes	walk the dog	go to market
1. Being outdoors	1	2	3

In the example, "going to the market" seems to best satisfy the need to be outdoors, even though limited travel in involved. "Washing dishes" does not help at all because you would remain indoors to complete this activity. Therefore, "going to the market" gets the top rank of 3 points and "washing dishes" receives only 1 point when comparing the three "musts." "Walking the dog" is in the middle because you would be outdoors briefly to complete this activity.

11. Rank all of the "musts" and assign points for each listed value. Then total or sum the points to determine the overall ranking of the "musts." The activity with the most points best meets your needs when comparing the activities. The "must" with the fewest points does not seem to satisfy personal interests.

12. Make another deal with yourself. Draw a line through the "must" which does not seem to contribute to the attainment of your personal needs, interests, and values. Try to find some way to eliminate this activity from your life. By doing so, you will have created

additional play time which will help you to manage stress better. One good way to eliminate "musts" is to sit down with your spouse or another important person and negotiate "musts." You could do one thing that another person doesn't like for each "must" the person does for you. The "Self-Centering" activity can be used for many other kinds of decision-making, as well.

CAREER EXPLORATION

I. SELECTION CRITERIA

A. Suggested Prerequisite Activity/Exercise	E/S-1
B. Preferred Application	3.3
C. Alternate Application	3.2, 3.1
D. Related Application	2.3
E. Suggested Follow-up Activity/Exercise	E/S-1

II. ADMINISTRATIVE CRITERIA

D. List of Required Resources

1. Instructor Information Sheets	
a. Supply and Demand of Nurses	v
b. Occupational Choices	ix
2. Student Information Sheet	xi
3. Student Handout	NA
4. Assignment Sheet	xiii
5. Supplies/Equipment List	NA
6. Pre-treatment Assessment	NA
7. Post-treatment Assessment	NA
8. Follow-up Assessment	NA

9. References

a. Center for Research, School of Nursing. Conditions associated with registered nurse employment in Texas. Austin, Texas: University of Texas at Austin, 1980.

b. Grissum, M., & Spengler, C., Womanpower and health care. Boston: Little, Brown, and Company, 1976.

c. Hallas, G.G. Why nurses are giving it up. RN, 1980, 43, 17-19.

d. Kalisch, B., & Kalisch, P. Nursing shortage? Yes! American Journal of Nursing, March 1979, 469-480.

e. Kuritsky, J., & Reeder, G. A report on an emerging occupation: The physician's assistant. Research and demonstration grant. UCLA Allied Health Professions Projects. Los Angeles: Division of Vocational Education, UCLA, 1971.

f. Texas Hospital Association. Survey of nursing staff requirements. Austin, Texas: Texas Hospital Association, 1979.

g. Texas Nurses Association. Nurse shortage in Texas: Recommendations on short-term requirements and resources of registered nurses. Interim report of the Texas Blue Ribbon Committee. Austin, Texas: Texas Nurses Association, 1981.

h. U.S. Department of Health and Human Services. A directory of expanded role programs for registered nurses: 1980. Washington, D.C.: Superintendent of Documents, 1980.

III. DESIGN CRITERIA

A. Objective: After completing the activity, the student should be able to describe in writing at least three factors which contribute to the nurse shortage in Texas.

B. Directions: Read the Instructor Information Sheets, the student materials, and as many of the references as possible. Secure copies of the Student Information Sheet, relevant pages from the from the Occupational Outlook Handbook, other career resources, and the Assignment Sheet. Vocational Biographies and recruitment materials from local hospitals can also be used.

Contact one or more guest speakers who is (are) knowledgable about educational requirements and opportunities for nurses. A member of the nursing staff who has an interest in a particular specialty area would be ideal. The speaker should emphasize opportunities in the local geographical area. Invite the speaker(s) to address the class during the second half of the first class session, if possible. In addition, should more than one speaker be used, invite at least one practicing nurse.

During Class Session One, Distribute copies of the Student Information Sheet, Occupational Outlook Handbook pages, and other available resources. Explain to students the meaning of the descriptive statistics and describe the nurse shortage problem in Texas. Generate class discussion about possible causes of the shortage and reasons nurses might choose to leave the workforce. Direct discussion to the area of career satisfaction and ask students how they think this might affect long-term commitment to nursing.

Emphasize that a nurse's perception of her or his work as a career, rather than simply a job, is directly related to the length of time in the field. Note that nurses usually decide to leave the workforce during the first three years. If this is the first activity, explain that this multimodal career education class was designed to help students with the career exploration and planning process. Distribute copies of the Assignment Sheet and establish a due date for its return--usually the next class meeting.

Use the second half of the first session for a presentation by a guest speaker. Encourage students to ask questions so that the material can be adapted to the needs of the class members. If possible, begin the second session with a presentation by a practicing nurse who is active in relevant professional organizations (e.g., the Texas Nurses Association). Devote the remainder of the class to discussion of the characteristics of the speaker (role model) and the work setting. Remember that a good career choice is expressed as a matching of individual needs, interests, and values with the demands of the work.

INSTRUCTOR INFORMATION SHEET

Supply and Demand of Nurses

Last year in the United States there were 90,000 to 100,000 vacancies for nurses in hospitals, with 88 per cent of institutions unable to fill available positions. As the same time approximately 25 per cent of our 1.4 million registered nurses had left the field of nursing.[1] These figures only generally reflect a trend which now exists over most of the United States. At a time when nurses are much in demand, not only is the supply of new nurses inadequate, but the existing supply is often dwindling as well.

The situtation in Texas is no less severe. Many Texas hospitals are unable to use empty beds due to the lack of nurses to care for the patients who would fill the beds.[2]

In October, 1979, the Texas Nurses Association commissioned the establishment of a Blue Ribbon Committee to analyze the problem and to "lend expert opinion on trends and issues in health care."[3] Although the long-term plan for the commitee includes the consideration of goals for the next ten years, the initial effort was directed at identifying the extent and location of the nursing shortage in Texas today. The interim report submitted in February focuses on both current requirements (demand for nurses) and resources (supply of nurses) and recommends a plan of action to cover the next four years.

To obtain data on nursing requirements the commitee used a process relating current statistics on health services and the Texas population to RN staffing criteria established by a panel of health services delivery experts. The committee's most conservative estimate of the 1980 requirements for RN's in Texas is a total of 63,241 broken down as follows:[4]

Inpatient (hospital) needs	40,869
Physicians' offices	4,417
Community health	4,053
Nursing homes	3,959
Occupational health	3,903
School health	2,042
Schools of nursing	1,582
Private duty	1,301
other	1,115
	63,241

Nurse practitioners and clinical specialists were considered seperately, and total requirements for these are 1,179 and 1,749, respectively.

The committee's projection of the supply of nurses consists of data compiled from various health settings. The sources and numbers are as follows:[5]

Nursing education system (degree programs, generic programs, and diploma schools)	4,006
Active nurses	45,525
Inactive nurses (13% returning to employment)	2,213
Attrition from migration patterns	(40)
Impact of the licensing process	(961)
	50,743

The gap, then, is confirmed. The Texas supply of 50,743 nurses simply does meet the yearly demand for 63,241 nurses.

In conjunction with the above data, the Blue Ribbon Committee presents a number of recommendations aimed at a solution to the problem. The following are a few of the primary suggestions: 1) that the state legislature establish a study commission on nursing education, 2) that a major task force be formed for further study and planning, 3) that the education system be escalated to produce 20% more graduates per year, 4) that recruiting be increased, 5) that state support be increased for two year junior college ADN programs and four years BSN programs, and 6) that special efforts (e.g. innovative efforts at relieving communication problems, individual orientation, and other programs) be made to improve nurse retention.[6]

A different approach to the issue is taken by Diane LaRochelle in a paper presented to the American Personnel and Guidance Association in 1979.[7] She suggested that much of the shortage can be attributed to various imbalances. of specific types of nursing resources and specific types of demands. For instance, as a general rule employers' opinions of new graduates rate diploma nurses most desirable, baccalaureate nurses next most desirable, and associate degree nurses least desirable of the three. The number of diploma graduates, however, is declining, and A.D. programs are producing more graduates than other types of schools. Baccalaureate programs are not meeting the demand for their graduates, and LaRochelle predicts that this gap will be particularly wide.[8]

Another imbalance exists between the supply and the need for nurses with advanced preparation in specialty areas (clinicians, educators, researchers, and administrators). Still another is the uneven geographic distribution of nurses.[9]

Finally, LaRochelle reminds us that "the major supply of potential applicants, high school women, is leveling off." She believes that this may increase the demand for other types of applicants, such as men, and women in mid-life.[10]

Whatever the cause, nursing needs are obviously not being met at present. Analyses such as the examples given should at least serve as starting points for understanding the problem and thereby beginning work towards effective solutions.

[1] *Newsweek*, September 22, 1980, p. 93.

[2] Conditions Associated with Registered Nurse Employment in Texas. Center for Research, School of Nursing, University of Texas at Austin, 1980, p. 1.

[3] Report of Short-Term Recommendations on Requirements and Resources of Registered Nurses in Texas, Interim Report, Texas Nurses Association Blue Ribbon Comittee, February, 1981, p. 1.

[4] *Ibid*., pp. 3-4.

[5] *Ibid*., pp. 5-7.

[6] *Ibid*., pp. 8-21.

[7] LaRochelle, Diane R. The Nursing Profession: New Perspectives, New Programs, New Practices. Presented at the annual meeting of the American Personnel and Guidance Association, April 5, 1979.

[8] *Ibid*., pp. 7-14.

[9] Kalisch, Beatrice, and Phillip Kalisch. Nursing Shortage? Yes! *American Journal of Nursing*, March, 1979, pp. 469-480.

[10] LaRochelle, p. 9.

INSTRUCTOR INFORMATION SHEET

Occupational Choices

Do nurses see their work as a career commitment? The greater the nursing shortage problem, the more often this question seems to be raised. During a recent nursing advisory committee meeting the problem of the "washer-dryer" nurse was addressed.[1] This type of nurse, who works only sporadically for short term goals such as buying an appliance, lacks career commitment.

A number of studies have shown that women who enter a predominately female profession such as nursing are often not motivated by an intention to pursue a long-range career.[2] The advisory committee suggests, however, that career commitment can be fostered through interaction between students and nursing faculty or other professionals serving as role models. Another committee recommendation is additional career orientation to students.[3] Opportunities for career expansion and specialization are overlooked by students who simply lack knowledge of these possibilities.

Self-knowledge is essential if a nurse is to realize job satisfaction, Mary Reres advises. "Recognition of one's assets and limitations is a necessity for the applicant who seeks a job that offers satisfaction, utilization of abilities,and growth potential."[4] Without this ability to direct one's own professional career, a nurse might move from one job to another continually seeking fulfillment. The opportunity to develop this skill can be offered to nursing students in the classroom just as other career exploration skills can be taught.

Nurses today have a choice of numerous role expansion possibilities, depending on training opportunities and geographical location. The U.S. Department of Health and Human Services provides a Directory of Expanded

Role Programs for Registered Nurses which lists the names, addresses, and types of educational programs available to Registered Nurses.[5] Roles and specialities included are: clinical nurse specialist, clinical specialist, nurse practitioner, nurse specialist, and obstetrical-gynecological.

One new expanded role seen fairly frequently in recent years is that of the nurse practitioner. In this position a nurse crosses some boundaries of a physician's territory by providing some medical services (e.g. certain diagnoses), under the direct or indirect supervision of a physician. Although some doctors feel threatened by this "invasion" of territory, nurse practitioners themselves claim that their services do not interfere with a doctor's world. Many of them feel that they are able to provide an additional service by acting as an intermediary between the patient and physician, and that the patient would not receive comprehensive care without this.[6]

Of course there are many more opportunities that could not be mentioned here due to a limitation of space. Every student should therefore be guided to conduct career research to uncover individual possibilities. Careful attention to a good career "fit" should allow for a longer, more comfortable nursing future.

[1] "Multimodal Career Education for Nursing Students" Advisory Committee, Dallas, Texas.

[2] Hall, Beverly A. Occupational Values and Family Perspectives: A Comparison of Prenursing and Premedical Women. Communicating Nursing Research, 1977, 8, 124-132.

[3] "Multimodal Career Education for Nursing Students" Advisory Committee

[4] Reres, Mary. Assessing Growth Potential. American Journal of Nursing. April, 1974, p. 671.

[5] A Directory of Expanded Role Programs for Registered Nurses: 1980. U.S. Department of Health and Human Services.

[6] Wright, Glenda, and Sandra Regenie. Presentation to nursing students, Odessa College, March 30, 1981.

STUDENT INFORMATION SHEET

Facts on Supply and Demand of Nurses

---There is an acute shortage of nurses in U.S. hospitals.

---Eighty-eight per cent of institutions are unable to fill available positions.

---Twenty-five per cent of the 1.4 million RNs in the U.S. have left the nursing field.

---The estimated 1980 requirement for RNs in Texas was 63,241, versus an estimated supply of 50,743.

---New nursing school graduates have the highest turnover rate.

Factors Contributing to the Nursing Shortage

---The nursing profession is subject to interruptions traditionally expected to take place in a woman's life, such as: child-bearing and -rearing, household management and other marital responsibilities.

---Nurses too often do not view nursing as a lifelong career, as other professions are viewed.

---New nurses experience "reality shock" when they abruptly enter the working world after an idealistic educational experience.

---Unsatisfactory working conditions (e.g. heavy paperwork, unsafe practices, too little or too much responsibility, unwieldy bureaucratic hospital structure, etc.)

---Inadequate salary.

Suggestions for Nursing Career Satisfaction

---Plan your career as a lifelong endeavor, listing short-range steps to be reached at different points in time.

---Take an egalitarian approach to family living to avoid the unequal and unfair burden of home responsibilities frequently hindering a woman's career development.

---Learn about the various types of specialized nursing work or role expansion opportunities available. Check early on educational requirements for these possibilities.

---Analyze your own talents, interests, and needs. Then do your best to plan a particular type of nursing career that is most complementary to these.

---Keep abreast of nursing issues and political issues related to nursing for continued professional development.

---Be assertive on the job and take advantage of continuing education opportunities, particularly to increase communication skills.

---Learn to use stress management and relaxation techniques.

ASSIGNMENT SHEET

Career Exploration

Interview a person who is actually doing a job in which you are interested as a career. If you have a special area of interest as a future nurse, try to find someone who has personal experience with this special area. Be sure you choose someone with experience in which you are genuinely interested--not just someone who is easy to talk with. This is your opporturnity to get some inside information you can use for yourself.

The interview can be short--as little as 10 or 15 minutes; and if you are unable to arrange a face-to-face talk with the person you choose, you could do a telephone interview (although a face-to-face talk would be best).

Be sure to call the person you would like to interview to ask if they will talk with you. Arrange an appointment. Then make a list of questions to ask during the interview. Aim at getting information that would be useful to you in learning more about the work in question.

During the interview, you can either use a tape recorder or take notes on the person's responses. You do not have to use a tape recorder, whether you used a tape recorder or took notes will not affect your grade. But do get some record of the person's responses. Direct quotes would be nice, but parapahrasing the person's statements will be OK.

After the interview, pick out the best parts (the most important or most interesting points made) and write up a portion of the questions and answers--2 to 3 pages will be enough. On the top of the first page, explain whom you interviewed, what their job and/or special area of expertise is, and the date of the interview.

If you need assistance in locating a person who has experience in your area of interest, please talk with one of the instructors of this course for help. We should be able to make some recommendations. If there is an other reason you think you might have trouble with this assignment, talk with one of us about this, too.

CONCEPT TREES

I. SELECTION CRITERIA

A. Suggested Prerequisite Activity/Exercise	B-1
B. Preferred Application	2.3
C. Alternate Application	2.1
D. Related Application	2.2
E. Suggested Follow-up Activity/Exercise	B-2

II. ADMINISTRATIVE CRITERIA

A. Number of Participants	Individual
B. Estimate of Time	
1. Instructor preparation	Negligible
2. Student involvement	45 minutes
C. Location of Activiey	Home
D. List of Required Resources	
1. Instructor Information Sheet	NA
2. Student Information Sheet	NA
3. Student Handout	iii
4. Assignment Sheet	NA
5. Supplies/Equipment List	NA
6. Pre-treatment Assessment	NA
7. Post-treatment Assessment	NA

8. Follow-up Assessment

   Visualization task or guided imagery test

9. References

   None; Exercise is self-contained

III. DESIGN CRITERIA

A. Objective: After completing the exercise, the student should be able to construct a concept tree for one paragraph of Anatomy and Physiology or Basic Nursing text.

B. Directions: Read Student Handout. Secure ample copies if exercise will be distributed to all class members. Explain the assignment involved in completing the exercise and establish a due date for the return of the form. The objective of the exercise is achieved by completing the assignment incorporated in the handout.

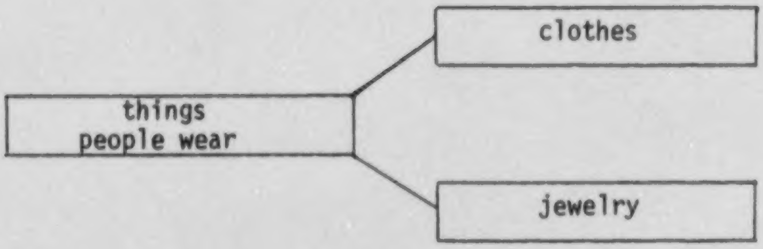
STUDENT HANDOUT

Concept Trees

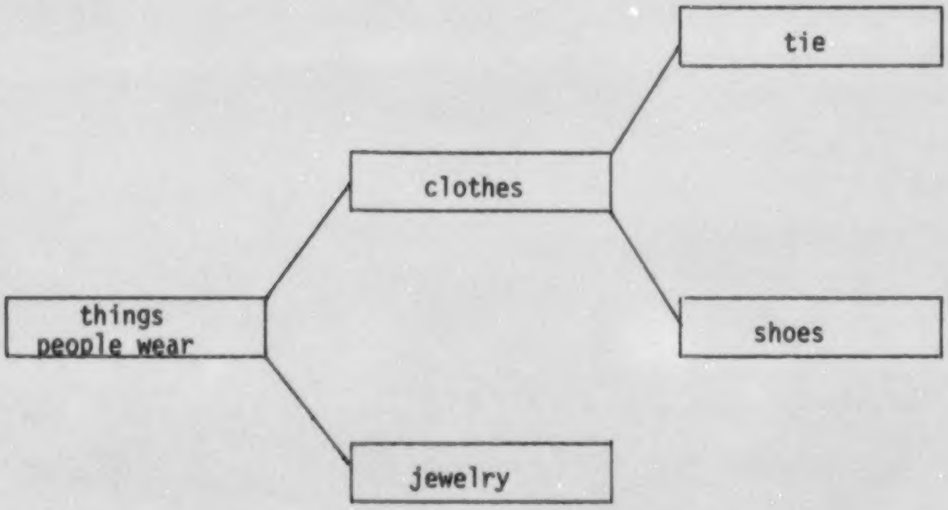
Very important to your learning is the ability to organize, divide, subdivide, and classify information. One of the ways to do this is using concept trees. Suppose you had the following words: tie, shoes, clothes, jewelry, things people wear. First look for the word(s) that appear to encompass the other word(s). The answer would be--things people wear. Start with a box to symbolize this idea:

things
people wear

Next, identify the ideas that are the most general subdivisions of the main idea. There are two, clothes and jewelry. Arrange them like this:



Looking at the remaining words, tie and shoes, decide under which subdivision they belong. Of course they belong to the subdivision of clothes. Next, determine if one of the words is a subdivision of the other. Tie is not a kind of shoes, nor are shoes a kind of tie. Since they are equal concepts in terms of organization, they will both be diagrammed as "outshoots" of the concept clothes. Our completed concept tree would look like this:



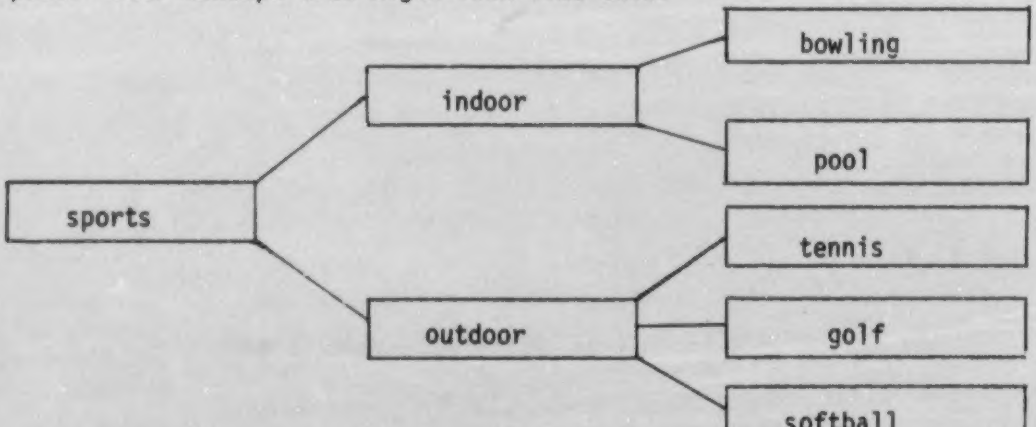
Assignment: Complete or constuct a concept tree for the following lists of words:

1. animal, dog, Calico, German Shepherd, Dalmation, Cat, Beagle.

2. Stars, heavenly bodies, Jupiter, planets, Mars.

3. Pencil, felt tip marker, writing instruments, ball point pen.

On the following lists of words, you will have to impose a classification system. You will have to create some general categories. For example, suppose you are given the following list: tennis, bowling, golf softball, pool. Your concept tree might look like this:


bowling
indoor
pool
sports
tennis
outdoor
golf
softball

There may be several ways of classifying a given set of information. The important thing is to insure that the classification system is logical and consistent.

Construct a concept tree for the following, creating general categories as needed.

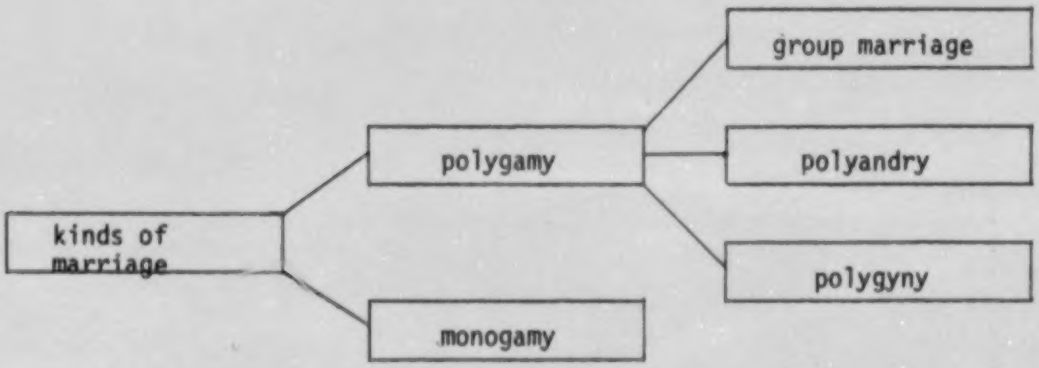
4. lettuce, apple, banana, squash, steak.

5. aunt, mother-in-law, uncle, brother, sister

Concept trees can also be constructed for ideas in text. For example, consider the following excerpt from a sociology text.

To us, the only decent and civilized form of marriage is monogamy--one man to one woman (at a time). Yet a majority of the world's societies have practiced polygamy, allowing a plurality of mates. There are three theortical forms of polygamy. One is group marriage, in which several men and several women are all in a marriage relationship with one another. . . A very rare form is polyandry, where several husbands share a single wife. The Todas of Southern India provide one of few examples. The usual form of polygamy is polygyny--a plurality of wives not necessarily sisters and generally acquired at different times during one's life.[1]

Your concept tree for this excerpt would look something like this:



Create a concept tree for the following excerpt from a voice and diction text.

Two categories of pitch changes together constitute the overall pitch variation or intonation of American-English speech. These are inflections and shifts or steps. Inflections are modulations of pitch that occur during phonation. Shifts are changes of pitch that occur between phonations. Inflections may be subclassified according to contour or "direction" of change as downward, upward, and circumflex.[2]

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[1] Horton, P.B. & Hunt, C.L. Sociology, 2nd ed. New York: McGraw-Hill Book Company, 1968, p. 218.

[2] Eisenson, J. Voice and Diction: A program for improvement. New York: Macmillan Publishing Co., Inc., 1979, pp. 102-103.

Assignment: Create a concept tree for a small body of information you are required to learn for one of your classes. You may use your notes or your text to find an appropriate body of information.

INTRODUCTION TO ASSERTION

I. SELECTION CRITERIA

A. Suggested Prerequisite Activity/Exercise	E/S-1
B. Preferred Application	4.2
C. Alternate Application	4.1, 4.3
D. Related Application	NA
E. Suggested Follow-up Activity/Exercise	S-1

II. ADMINISTRATIVE CRITERIA

A. Number of Participants	Large Group
B. Estimate of Time	
1. Instructor preparation	60 minutes
2. Student involvement	50 minutes
C. Location of Activity	Classroom
D. List of Required Resources	
1. Instructor Information Sheet	v
2. Student Information Sheet	vii
3. Student Handout	ix
4. Assignment Sheet	xi
5. Supplies/Equipment List	NA
6. Pre-treatment Assessment	
a. *Rathus Assertiveness Scale* (Rathus, S. A 30-item schedule for assessing assertive behavior. *Behavior Therapy*, 1973 *4*, 398-406.)	
B. Career Development Questionnaire Items (IV.B)	

7. Post-treatment Assessment
    a. Evaluation Exercise x
    b. Objective ii
8. Follow-up Assessment NA
9. References
    a. Clark, C.C. Assertive skills for nurses. Wakefield, Massachusetts: Contemporary Publishing Company, 1978.
    b. Grissum, M., & Spengler, C. Womanpower and health care. Boston: Little, Brown, and Company, 1976.
    c. Herman, S.J. Becoming assertive: A guide for nurses. New York: D. Van Nostrand Company, 1978.
    d. Hutchings, H. & Colburn, L. An assertiveness program for nurses. Nursing Outlook, 1979, 394-397.
    e. Jakubowski-Spector, P. Facilitating the growth of women through assertiveness training. The Counseling Psychologist, 1973, 4, 75-86.
    f. Lange, A.J. & Jakubowski, P. Responsible assertive behavior: Cognitive/behavioral procdures for trainers. Champaign, Illinois: Research Press, 1976.

III. DESIGN CRITERIA

A. Objective: After completing the activity, the student should be able to define assertiveness, nonassertiveness, and aggressiveness, and to distinguish among the three when provided a written evaluation.

B. Directions: Read Instructor Information Sheet, student materials, and as many of the references as possible. Secure ample copies of the Rathus Assertiveness Scale (RAS), the Student Information Sheet, the Student Handout, the Assignment Sheet, and the Evaluation Exercise.

Distribute copies of the RAS. After every one has completed the scales, begin a class discussion by noting that understanding one's basic rights is essential to mastering assertion skills. Ask students to write ten of their basic human rights by completing the phrase, "I have a right to..." Form small groups (5-7 persons) and ask students to discuss their lists of rights. Return to the large group and continue discussion of recurring or common rights. End discussion by distributing copies of Student Handout. Ask students to describe the "picture" that is imagined when you say the phrase, "an assertive nurse." Select students to share individual images or self-talk concerning the assertive nurse. Often, students will offer the following descriptions: "pushy," "big and mean," and "Hard to get along with..." Explain that such descriptions reflect aggressiveness rather than assertiveness. Emphasize the general confusion regarding the differences between assertion and aggression. Distribute copies of the Student Information Sheet and discuss terms. If activity E/S-1 has been completed prior to this activity, review problems in the socialization of women which lead to passive, nonassertive behavior. Present passive aggressive behavior as an unacceptable alternative to assertion.

Stimulate discussion by requesting examples of interactions in the hospital or the home. Ask students to label the behaviors in the interactions as "assertive," "nonassertive," "aggresive," or "passive aggresive." Help students to be concrete in describing examples. Ask them to think about the self-talk that occurs--including labels for the behaviors of self and other. After sufficient discussion, distribute copies of the Assignment Sheet. Read the instructions to the students and establish a due date for the written assignment (exercise).

At the next class meeting, collect Assignment Sheets. Then, distribute copies of the Evaluation Exercise. Allow approximately five minutes for completion of the evaluation. Without discussion, begin related activity. Use scores from exercise to determine how frequently reinforcement of basic concepts should be offered in subsequent sessions.

INSTRUCTOR INFORMATION SHEET

The female socialization process encourages women to act passively, to be obedient, and to abdicate their rights. The nursing occupation is particulary vulnerable to these restrictive expectations since it is generally considered a feminine occupation. To overcome this socialization process, assertiveness training has been suggested (Jakubowski-Spector, 1973).

Assertive behavior is standing up for one's rights in an open, appropriate manner so as not to violate the rights of others (see Student Information Sheet also). In appropriate assertion, one expresses empathy for the person as a part of the assertive message (Herman, 1978). Such assertions begin with statements like, "I understand that this is important to you..." or "I know you are very tired..."

One common mistake is to confuse assertion with aggression. The difference between the two is the purpose of the behavior. The purpose of assertion is to express one's needs, desires, and feelings; but, the purpose of aggression is to belittle or humilate.

Jakubowski-Spector (1973, p. 80) has stressed the importance of establishing a "personal belief system which will help the client to support and justify her acting assertively." Giving one's self permission to act assertively aids in the maintenance of assertive behavior and defends against irrational guilt or unjust criticism for acting assertively.

In addition to establishing a personal belief system, Jakubowski-Spector (1973) suggest two other convictions which are important to hold. It is helpful for the person to believe happiness follows the appropriate assertion of rights and to believe taht nonassertion is ultimately harmful.

STUDENT INFORMATION SHEET

The following terms and inforamtion are taken from S.J. Herman's (1978) Becoming Assertive: A Guide For Nurses. Ask your instructor for references if you want to learn more about assertiveness.

ASSERTIVE BEHAVIOR IS:

That type of interpersonal behavior in which a person stands up for his or her own legitimate rights in such a way that the rights of another are not violated. Assertive behavior is a direct, honest, and appropriate expression of one's feelings, opinions, and beliefs. High-quality assertion also includes an empathic component that show some consideration, but not deference, for the other person.

NONASSERTIVE BEHAVIOR IS:

That type of interpersonal behavior which enables the person's rights to be violated in one of two ways:

(a) The person violates her or his own rights when she or he permits herself or himself to ignore personal rights that are actually very important to her or him, or,

(b) The person permits others to infringe on her or his rights. Nonassertive behavior pays off by enabling the individual to avoid potentially unpleasant conflicts with others; however, various unpleasant internal consequences such as hurt feelings and lowered self-esteem are likely to occur.

AGGRESSIVE BEHAVIOR IS:

That type of interpersonal behavior in which a person stands for her or his personal rights in such a way that the rights of another person are violated. The purpose of aggressive behavior is to dominate, humiliate, or put the other person down rather than to simply express one's honest emotions or thoughts (Jakubowski-Spector, 1973).

A variant of non-assertive behavior is passive-aggressive behavior. This type of behavior is passive in that the person does not openly stand up for one's rights and aggressive because its intent is to "put down" or manipulate. An example is "forgetting" to do something that someone asked you to do becuase you did not want to do it. Making vague insinuations is another way of being passively aggresive. If a co-worker comes in late and rolls the eyes and saying, "Some of us have to be at work on time," the person is exhibiting passive aggressive behavior.

Assertiveness training is being incorporated into nursing literature and educational programs (see Clark, 1978; Herman, 1978; Hutchings and Colburn, 1979). Training is viewed as a way to counteract the expectations of women to be submissive and self-deprecating (Hutchings and Colburn, 1979) and to give nurses skills for effective confrontation (Grissum and Spengler, 1976).

STUDENT HANDOUT

Assertive Rights

Every Person has the Following Basic Rights.

1. The right to judge your own feelings and thoughts and to express them.

2. The right to be treated with respect.

3. The right to be listened to and taken seriously.

4. The right to set your own values and priorities.

5. The right to offer no reasons or excuses for justifying your behavior.

6. The right to say "no" without feeling guilty.

7. The right to ask for what you want.

8. The right to say, "I don't understand."

9. The right to make mistakes--and be responsible for them.

10. The right to choose not to assert yourself.

ASSIGNMENT SHEET

The purpose of this assignment is to give you practice in distinguishing assertiveness, non-assertiveness, and aggression. Record on the log below several interactions you witness or experience in the next two days. Record the responses that are made and identify the kinds of behavior.

SITUATION	RESPONSE	KIND OF BEHAVIOR

EVALUATION EXERCISE

The purpose of this exercise is to determine if you are able to distinguish among (1) assertiveness, (2) non-assertiveness, (3) aggression, and (4) passive aggression. Write the numeral of the label which best describes the behavior in the blanks.

Situation 1:

You are assisting a staff nurse at the hospital where you are receiving your clinical training. While making the bed, she allows the clean sheets to touch the floor. You have learned of the health hazards of allowing this to occur. You say:

____a. Nothing. Tell yourself it's not your place to say anything since you're just a student.

____b. "The sheet touched the floor. I know you are aware of the health hazards in this. I think it would be best if we got a clean set of sheets."

____c. "Are you going to put that sheet on the bed after it's touched the floor? Don't you care about your patients."

Situation 2:

You clinical supervisor walks up to you in the hospital and tells you what a great job you did with your patient Ms. Jones. You say:

____a. "Thank you. It's very important to me to do a good job with all my patients."

____b. "I've been doing a good job with all my patients. It's about time you noticed."

____c. (Blushing) "I did okay, I guess, but I didn't do as well as a real nurse would have.

Situation 3:

You got up a 5 a.m. to study for an exam, went to class all day, and then stayed in the library until 9 P.M. When you get home, all you want to do is take a hot bath and go to bed. As you walk in the door, your husband tells you he has a covered-dish luncheon tomorrow and he needs you to fix a dish for him to take. You say:

____a. "Fix it yourself, you lazy so and so."

____b. "O.K." (heavy sigh)

____c. Nothing. You walk in the kitchen and start banging pans loudly.

____d. "I am extremely tired and very much need to take a bath and go to bed. I would like for you to fix your own dish for the luncheon."

To the instructor. . . The following answers can be used to score the exercise: (1) a - 2, b - 1, c - 3; (2) a - 1, b - 3, c - 2; and (3) a - 3, b - 2, c - 4, d - 1.

ASSERTION TRAINING

I. SELECTION CRITERIA

A. Suggested Prerequisite Activity/Exercise	I-1
B. Preferred Application	4.1
C. Alternate Application	4.2, 4.3
D. Related Application	4.4
E. Suggested Follow-up Activity/Exercise	E/S-1

II. ADMINISTRATIVE CRITERIA

A. Number of Participants	Large Group
B. Estimate of Time	
1. Instructor preparation	360 minutes
2. Student involvement	360 minutes
C. Location of Activity	Classroom
D. List of Required Resources	
1. Instructor Information Sheet	iv
2. Student Information Sheets	
a. Definitions	xi
b. Assertive Rights	xiii
3. Student Handout	xv
4. Assignment Sheet	xvii
5. Supplies/Equipment List	NA
6. Pre-treatment Assessment	

Rathus Assertiveness Scale (Rathus, S. A 30-item schedule for assessing assertive behavior. Behavior Therapy, 1943, 4, 398-406)

7. Post-treatment Assessment

   Rathus Assertiveness Scale

8. Follow-up Assessment

   Rathus Assertiveness Scale

9. References

   a. Herman, S.J. Becoming assertive: A guide for nurses. New York: D. Van Nostrand Company, 1978.

   b. Lange, A.J. & Jakubowski, P. Responsible assertive behavior: Cognitive/behavioral procedures for trainers. Champaign, Illinois: Research Press, 1976.

III. DESIGN CRITERIA

A. Objective: After completing the activity, the student should be able to demonstrate assertive behavior in a role play of a typical nursing situation.

B. Directions: Read the Instructor Information Sheet, the student materials, and the references, if possible. Secure ample copies of the Student Information Sheets, the Student Handouts, and the Assingment Sheet. Obtain copies of the Rathus Assertiveness Scale if this measure is used at pre-treatment, post-treatment, or follow-up assessments.

During Class Session One, distribute copies of Definitions and Assertive Rights and the Assignment Sheets. Following parts I, II, and III of the outline on the Instructor Information Sheet, lead a lecture/discussion, pausing to obtain student examples which can be used throughout the three-session activity. During the last half of the class, conduct the "Assertion Situations" group exercise. The introductory material offered at the beginning of the class may be omitted if activity I-1 is completed before this activity. Ask students to complete Assignment #1 on the Assignment Sheet.

Assertion Situations. Each group of 3 or 4 persons will work together to list brief examples of occasions in which assertion would be particularly useful or appropriate. Each group should appoint one member to record the ideas. After discussion and listing of several examples, the groups rejoin the class. A representative from each group reads their list and the entire class discusses the "appropriateness" of assertive behaviors in several examples.

During Class Session Two, distribute copies of the Student Handout, "Basic Facts About Assertion, Nonassertion, and Aggression." Recover completed Assignments #1 and discuss student's experiences with the task. Lead a lecture/discussion which is guided by parts IV, V, VI, and VII of the Instructor Information Sheet. Conduct the second (individual) exercise. "Self-Analyzing a Situation." Explain that the second task on the Assignment Sheet should be completed before the next class session. Answer questions about the assignment and/or the lecture.

Self-Analyzing a Situation. Students are asked to record their own thoughts and ideas related to assertiveness. The instructor says "Think of a situation in which you would like to be more assertive, but your emotions get in the way." Tell students to write down some of the negative thoughts and determine whether or not they are rational. Next, students should write specific rational ideas to challenge the negative, irrational thoughts and the disputation ideas. Emphasize the importance of using this analysis in solving real problems in assertion.

Druing Class Session Three, recover the written reports generated by Assignment #2. Discuss problems and insights regarding the assignment. Lead a lecture/discussion using parts VIII and IX of the Instructor Information Sheet. The major portion of the class is devoted to role playing activities in the third exercise.

Role Playing. In groups of four or more, ask students to select four exemplary situations in which assertion would help. For example, students may choose a nurse confronting the supervisor about working hours or a nurse questioning a doctor about patient care. Students should select "parts" in each exemplary situation in order to conduct assertive role playing. The instructor walks among the groups, observing the role plays, and modeling appropriate assertive behavior, if necessary. Periodically, stop the role players and ask them to explain thoughts and behaviors which occured during their acting. Have partners exchange roles, especially if more assertive behavior is needed in a given role play situation. All students should participate in role playing, preferably, as both the nurse and the "other."

If the Rathus Assertiveness Scale were administered at the beginning of the first class session, then the post-test should be conducted after the last session. Administration of the instrument prior to the beginning of the activity held during the next scheduled class meeting is desirable.

INSTRUCTOR INFORMATION SHEET

I. Introduction to Assertion

A. Questions:

1. How many of you have heard of assertiveness training?
2. How many of you know what it is?
3. How many of you have recieved a negative impression of it?
4. How many of you have completed some assertiveness training?

B. General Definitions

1. A way of life--a way of respecting both oneself and others in everday situtations. Examples include
    a. Asking questions in class
    b. Giving compliments
    c. Meeting new people
    d. Making requests of people
    e. Communicating with someone in a difficult situation
2. An attitude that
    a. We all have basic rights.
    b. Effective communication is a valuable asset
3. A self-image booster

II. Importance of Assertiveness to Nurses

A. Nurses see themselves as caring individuals who must reduce tension, and they believe assertion might create more tension.

B. School and hospital environments promote passivity.

C. Sex role and nurse stereotypes devalue the image of the nurse.

D. Results of non-assertion include

1. Increased anxiety and frustration
2. Loss of patient advocate role
3. Loss of job satisfaction

III. Definitions

- A. Assertion
- B. Nonassertion
- C. Aggression

IV. Basic Facts About Assertion, Nonassertion, and Aggression

- A. Assertion--Why should you be assertive. . .
    - 1. . . .rather than nonassertive?
        - a. To increase self-respect
        - b. To increase self-confidence
        - c. To increase respect of others
        - d. To increase effectiveness as a person
    - 2. . . .rather than aggressive?
        - a. To increase self-control
        - b. To increase self-confidence, thereby, reducing insecurity which may lead to aggression
        - c. To defuse another person's potential anger or aggression
        - d. To maximize the likelihood of achieving satisfying relationships with others
        - e. To maximize the likelihood of meeting the goals and needs of both yourself and others
- B. Nonassertion
    - 1. Why people are nonassertive:
        - a. They fear that assertive behavior is rude or inconsiderate.
        - b. They mistake assertive behavior for aggression.
    - 2. Consequences of nonassertive behavior:
        - a. Escape from conflict, although often only temporary
        - b. Social gratification for being a "good person"
        - c. Loss of self-esteem

- d. Building pressure from resentment--possibly resulting in explosive aggression
- e. Lack of respect from others
- f. Lack of fulfillment of personal needs
- g. Lack of satisfaction in personal relationships due to faulty communication

C. Aggression

1. Why people are aggressive
    - a. They fear vulnerability.
    - b. They believe that aggression is justified if many unexpressed hurts have built up from prior nonassertion.
    - c. They feel that aggression is the only way to achieve a goal.
    - d. Aggressive behavior may be the usual method of approaching difficulty within the person's subculture or other background.
2. Consequences of aggressive behavior:
    - a. Immediate needs may be met, including emotional release and a feeling of power
    - b. Relationships with others suffer from the lack of constructive communication
    - c. Alienation from society, often including trouble with the law
    - d. Retaliation from others
    - e. Physical and/or emotional injury to those who are targets of the aggression
    - f. Loss of self-esteem when guilt results

V. Human Rights Belief System.

A. Principle No. 1: "Assertion--rather than manipulation, submission, or hostility--enriches life and ultimately leads to more satisfying personal relationships with people." (Lange & Jakubowski)

1. We gain both self-respect and respect from others through assertion.
2. When we communicate honestly, directly, and appropriately, everyone ultimately benefits.
3. When we demean other people we also demean outselves.
4. When be bend over backwards to avoid ever hurting anyone under any circumstances, we end up hurting both ourselves and others.
5. Our relationships with others suffer when we deny our personal feelings.

B. Principle No. 2: We all have the basic right to express honest thoughts and feelings and to behave assertively.

C. Tempering Assertion

1. Assertion must be flexible, as our rights can conflict with another's.
2. Overreaction to every violation to our own rights can be harmful. An obsession with our rights prevents us from respecting other's rights.
3. Our families or others close to us may need help in understanding assertion if our "new behavior" is a shock to them.
4. Chossing when to use assertion is one of our basic rights. We can ask ourselves some questions to assess whether or not to use assertion i.e., whether to be appropriately assertive.
    a. How important is the outcome of this situation to me?
    b. How important is the outcome of the other person?
    c. How will I feel afterwards, if I don't assert myself?
    d. If there are possible negative consequences to being assertive, how much will this cost me?

VI. Irrational Beliefs (Dr. Albert Ellis)

   A. If I assert myself, others will get angry with me.

   B. If I assert myself and others do get angry with me, I will be devastated; it will be awful.

   C. I will hurt others.

   D. If I hurt others, I am responsibile for their feelings.

   E. I'm worng and selfish to turn down legitimate requests. Other people will think I'm terrible and won't like me.

   F. I must avoid making statements or asking questions that make me look ignorant or stupid.

   G. Assertive women are cold, castrating bitches.

VII. Uses of Assertion

   A. Occasions

      1. meeting new people

      2. receiving and getting compliments

      3. making and refusing requests

      4. being a patient advocate

   B. Ways we behave assertively

      1. verbal

      2. nonverbal

VIII. Types of Assertion (See References)

   A. Basic

   B. Empathic

   C. Tactful

   D. I-Language

   E. Escalating

   F. Confrontive

IX. Helping Others Understand the "New You"

  A. Family and significant others

    1. more predictable--assertion can be planned ahead many times
    2. sufficient time can be allowed for working out communication difficulties
    3. total communication becomes necessary

  B. Work or School

    1. others hold power to over you
    2. contacts may be fleeting and time limited
    3. you have no choice in who you deal with
    4. the choice to use assertion may not be exercised as freely--or in as many situations

STUDENT INFORMATION SHEET

Definitions

Assertion: standing up for personal rights and expressiong thoughts, feelings, and beliefs in *direct*, *honest*, and appropriate ways which do not violate another person's rights.

Nonassertion: violating one's own rights by failing to express honest feelings, thoughts, and beliefs and consequently permitting others to violate oneself, or expressing one's thoughts and feelings in such an apologetic, diffident, self-effacing manner that others can easily disregard them.

Aggressions: directly standing up for personal rights and expressing thoughts, feelings, and beliefs in a way which is often dishonest, usually inappropriate, and always violates the rights of the other person.

Jakubowski, Patricia. *Responsible Assertive Behavior*.

STUDENT INFORMATION SHEET

Assertive Rights

1. The right to judge your own feelings and thoughts and to express them.

2. The right to be treated with respect.

3. Thr right to be listened to and taken seriously.

4. The right to set you own values and priorities.

5. The right to offer no reasons or excuses for justifying your behavior.

6. The right to say "no" without feeling guilty.

7. The right to ask for what you want.

8. The right to say, "I don't understand."

9. The right to make mistakes--and be responsibie for them.

10. The right to choose not to assert yourself.

STUDENT HANDOUT

Basic Facts About Assertion, Nonassertion, and Aggression

A. Assertion--Why should you be assertive. . .

1. . . .rather than nonassertive?
   - a. To increase self-respect
   - b. To increase self-confidence
   - c. To increase respect of others
   - d. To increase effectiveness as a person
2. . . .rather than aggressive?
   - a. To increase self-confidence, thereby reducing insecurity which may lead to aggression
   - c. To defuse another person's potential anger or aggression
   - d. To maximize the likelihood of achieving satisfying realtionships with others
   - e. To maximize the likelihood of meeting the goals and needs of both yourself and others

B. Nonassertion

1. Why people are nonassertive:
   - a. They fear that assertive behavior is rude or inconsiderate.
   - b. They mistade assertive behavior for aggression.
2. Consequences of nonassertive behavior:
   - a. Escape from conflict, although often only temporary
   - b. Social gratification for being a "good person"
   - c. Loss of self-esteem
   - d. Building pressure from suppressed resentment--possibly resulting in explosive aggression
   - e. Lack of respect from others
   - f. Lack of fulfillment of personal needs

    g. Lack of satisfaction in personal relationships due to faulty communication

C. Aggression

  1. Why people are aggressive:
    a. They fear vulnerability.
    b. They feel that aggression is justified if many unexpressed hurts have built up--from prior nonassertion.
    c. They feel that aggression is the only way to achieve a goal.
    d. Aggressive behavior may be the usual method of approaching difficulty within the person's subculture or other background.
  2. Consequences of aggressive behavior:
    a. Immediate needs may be met, including emotional release and a feeling of power
    b. Relationships with others suffer from the lack of constructive communication
    c. Alienation from society, often including trouble with the law
    d. Retaliation from others
    e. Physical and/or emotional injury to those who are targets of the aggression
    f. Loss of self-esteem when guilt results

ASSIGNMENT SHEET

Session #1

1. Introduce yourself to three people this week. Write down briefly for each situation: what you liked about the way you introduced yourself and what you like about the other person's response.
2. Notice your own nonverbal behaviors on three separate occasions during the week. Write down the nonverbal behaviors that you think were good ones.
3. Give three compliments this week. Write down how comfortable or uncomfortable you felt and how direct you were.
4. If you received a compliment this week, briefly describe how you felt and how you responded.

Session #2

1. Notice different ways that you and other people behave assertively, nonassertively, and aggressively. Briefly jot down three examples.
2. Record one or two examples of (a) situation(s) where you had difficulty responding assertively to someone. Write down:
   a. how the person violates your rights;
   b. any irrational thoughts that go through your mind; and
   c. two or three possible assertive responses you might use in the situation.

MULTIMODAL CAREER EDUCATION

I. SELECTION CRITERIA	
A. Suggested Prerequisite Activity/Exercise	None
B. Preferred Application	2.2
C. Alternate Application	2.3, 2.1
D. Related Application	4.2
E. Suggested Follow-up Activity/Exercise	T-1
II. ADMINISTRATIVE CRITERIA	
A. Number of Participants	Large Group
B. Estimate of Time	
1. Instructor preparation	120 minutes
2. Student involvement	120 minutes
C. Location of Activity	Classroom
D. List of Required Resources	
1. Instructor Information Sheet	NA
2. Student Information Sheet	v
3. Student Handouts	vii
4. Assignment Sheet	xiii
5. Supplies/Equipment List	xv
6. Pre-treatment Assessment *Career Development Questionnaire* (CDQ)	
7. Post-treatment Assessment None	NA
8. Follow-up Assessment CDQ	NA
9. References	

a. Gerler, Jr., E.R. The "BASIC ID" in career education. *Vocational Guidance Quaterly*, 1977, *26*, 238-244.

b. Lazarus, A.A. Multimodal behavior therapy: Treating the BASIC ID. Journal of Nervous and Mental Disease, 1973, 56, 404-411.

c. Smith, R.L. & Southern, S. Multimodal career counseling: An application of the "BASIC ID." Vocational Guidance Quarterly 1980, 29, 56-64.

d. Southern, S., Hannaford, C., Smith, R.L., Topper, K., & Raley, N. Multimodal career education for nursing students. Paper presented at the 1981 American Personnel and Guidance Association Convention, 13 April 1981. (Copy is included as gray pages in this volume.)

III. DESIGN CRITERIA

A. Objective: After completing the activity, the student should be able to use the multimodal career education model in assessing personal career development strengths and needs.

B. Directions: Read the resources within this volume, especially the convention paper (Gray pages), the Student Information Sheet, the Student Handouts, the Assignment Sheet, the Supplies/Equipment List, and as many of the references as possible. Secure ample copies of the Career Development Questionnaire, the handouts and assignment sheet, the Multimodal Career Assessment Chart, and the Multimodal lecture using the aforementioned resources.

During the lecture, describe each of the factors, using the transparency (Table 1) as a guide and providing concrete examples of strengths and needs within each modality. Discuss the assessment rules and present the transparency of Table 2.

Distribute copies of the handout entitled "The Case of Rhoda B." Read the handout along with the students and then present the corresponding Multimodal Career Assessment Chart one cell at a time. Focus first on strengths and then needs. Ask for student contributions as you develop the chart on the transparency. After completing this process, ask students to identify potential interventions and career development activities which will ameliorate Rhoda's problem.

Present the next handout and transparency for "The Case of John T." Require greater student participation before revealing cells on the transparency. Move quickly to the final case of Terry H. This case relates directly to the concerns of the nursing student.

Let student contributions guide the review of "The Case of Terry H." Use the blank chart transparency to record correct student assessments. After reviewing the case, ask students whether Terry is a man or a woman. Emphasize that multimodal career education attends to these expectations and sterotypes and their influences upon career development.

Next, address the assignment. Students should complete the Career Development Questionnaire and then transfer self-assessments to the Multimodal Career Assessment Chart, both of which should be provided to students as this time. Set a due date for return of the assignment. Note that competency or mastery of the multimodal career education model will be checked by comparing entries on the chart with instructor responses on the Multimodal Career Development Profile, which will be returned with each student's chart.

Career development gains can be assessed by use of the CDQ at follow-up or pre- and post-tests using other outcome measures. Demonstration of understanding of the model, through completion of the CDQ and the chart, is the most important consideration.

STUDENT INFORMATION SHEET

Multimodal Career Education

Multimodal career educaion is an instructional approach which links strengths and needs measured by the Career Development Questionnaire (CDQ) with activities and exercises whichare designed to foster career development. Eight factors or modalities are considered in evaluating one's career choice, job acquisition, job maintenance, and career advancement. The eight factors include Behavior, Emotion, Self-Talk, Thought, Interpersonal Relations, Developmental Level, Economic and Societal Factors, and Alpha Factors. The first letter of the Factors form the acronym BEST IDEA, a shorthand device for remembering the modalities.

The BEST IDEA was based upon the work of Arnold Lazarus of Rutgers Univeristy. Lazarus created "multimodal behavioral therapy"in order to reduce the tendency to aimlessly "muddle" in a single area of functioning when trying to solve problems. Multimodal career education can be a means for you to comprehensively and systematically explore the world of work. Career education has traditionally focused upon linking individual needs and talents with the demand of the world of work. Involvement in multimodal career development activities insures that you control the exploration process and promote a goodness-of-fit between your needs and the demands of nursing, your chosen career field.

Refer to the two tables which your instructor will provide you for additional details. You will be asked to complete several in-class exercises as well as a homework assignment. In order to complete the exercises and home work assignment, you must become acquainted with the Factors (Table 1) and the assessment rules (Table 2).

STUDENT HANDOUT

THE CASE OF RHODA B.

Rhoda B., a 22 year old high school graduate, visits a counselor at a local community college. She initially seeks information regarding the college's program for animal technicians--a course of studies which she could pursue her love of domestic animals. Gradually, her attention shifts to a habitual career problem, getting and keeping a "meaningful" job.

A number of factors may affect Rhoda's ability to find and keep a job and to pursue career goals.

Rhoda has a history of regular drug use including alcohol, marijuana, and occassionally, hallucinogens. Friends have identified subtle changes in her behavior and appearance, which they attribute to the years of drug use. By contemporary standards, Rhoda has an unkempt appearance--e.g., often she wears the same pair of blue jeans for several consecutive days.

Although Rhoda is friendly and cordial, some persons seem to be bothered by her overly casual manner as well as her tendency to "stare through" persons by focusing so intently on their speech. Rhoda also engages frequently in negative self-statements. In fact, her humor focuses upon personal weaknesses.

In addition to negative overt speech, Rhoda daily uses irrational self-talk. Statements such as: "I'm a failure," "No one would hire me," and "I couldn't become a veterinarian," make Rhoda depressed and anxious about her future. She often says "I want to do something with my life." However, Prior to coming to the counselor, she has made a few attempts to realize career goals.

As a child, Rhoda was very dependent upon her parents. She was especially comforted by thoughts and day dreams about her powerful father who would "always protect me." After high school, Rhoda became involved with a series of lovers. She always assumed a submissive role in the relationships. Rhoda expresses anger regarding the men who exploited and left her.

STUDENT HANDOUT

THE CASE OF JOHN T.

John T., a 17 year-old high school senior, is referred to the school counselor because of disciplinary problems. During their conversation, the counselor suspects that a lack of career goals and plans may be influencing John's behavior.

Several factors affect John's ambivalence about a career. The factors are also related to his problems with peers and family members.

John has never possessed a sense of control over his environment. His authoritarian father was very inconsistent in his child-rearing practices: in one situation, he would reward John with praise for creative work while, in similar situations, he would physically punish the child for "frivolous" behavior. John, like his mother, always tried to follow his father's commands.

Friends and teachers believe that John possesses outstanding artistic ability. He works well with his hands, creating beautiful ceramic and glass works, but he feels guilt over wanting something that is contrary to his father's wishes. John's father wants him to learn a skilled trade.

John thinks that school is a waste of time. He doesn't expect to learn anything of value and his grades confirm this view. Since John cannot consider an artistic career, and he doesn't want to investigate construction trades, he day dreams about running away. John also fantasizes about daring and adventurous occupations in which he overcomes almost insurmountable obstacles to win the admiration and respect of those around him.

The teachers complain that John has already "dropped out." He doesn't participate in any classroom or school activities. Recently, he has become belligerent when questioned about his failure to complete routine assignments.

STUDENT HANDOUT

THE CASE OF TERRY H.

Terry H., a 25 year-old student in a school of nursing, is planning to quit the L.V.N. program. Having adequate test scores, there were no problems in the academic, pre-professional training. Rather, Terry complained of difficulties in understanding the role of the nurse in the hospital.

Several major factors led Terry to break the commitment to a nursing career.

Terry offered the following explanation to the Health Professions Counselor, "I really wanted to do something to help people; I love working with people, but I didn't know that training in the hospital would be so difficult." Terry emphasized problems in dealing with emergency room patients who were admitted with gaping wounds and severe pain. The glamour of the white uniform was quickly lost in the trail of blood and death.

Terry had always wanted to become a nurse because of encouragement from friends and relatives. They would say, "Nursing is a highly responsible profession." However, Terry concluded from the first few months of training that "I do not receive enough respect or appreciation for my hard work." Also, the abuse taken by professional nurses in the hospital did not fit well with the image of working on a health care team.

Trouble also arose when tenured nurses in the ward gave instructions which were not correct. Due to a reluctance to communicate assertively and a fear of disapproval by others, Terry did not discuss the matter with the nurse administrator. Becoming disenchanted with nursing in general, Terry soon began drinking excessively. Terry reasoned that there were not sufficient opportunities for career development anyway.

ASSIGNMENT SHEET

In order to demonstrate mastery of the multimodal career education model, you should be able to complete the Career Development Questionnaire (CDQ) and transfer your assessment of strength, excesses, and deficits to the Multimodal Career Assessment Chart. Your instructor will give you copies of the CDQ and the chart.

After returning the CDQ and the chart, your competency in using the model will be evaluated. The instructor will return your chart and a Multimodal Career Development Profile. Competency in using the model will be determined by the correspondence between the entries on your chart and those on the profile form.

SUPPLIES/EQUIPMENT LIST

1. Overhead projector

2. Transparencies

   Five Transparency Masters are attached: Table 1, Table 2, The Case of Rhoda B. (Chart), The Case of John T. (Chart), and Multimodal Career Assessment Chart (Blank)

3. Optional: Multimodal Career Development Profile (See Appendix A) and Career Development Questionnaire and Scoring Resources (Appendix B).

TABLE 1

"BEST IDEA" . . . Multimodal Career Education

Acronym	Factor/Modality	Description
B	Behavior	Observable actions or responses
E	Emotion	Feelings or physiological arousal
S	Self-talk	Internal speech
T	Thought	Images, dreams, and fantasies
I	Interpersonal Relations	Interactions with one or more persons
D	Developmental Level	Age-appropriate behaviors and special learning needs
E	Economic and Societal Factors	Cultural and socioeconomic influences
A	Alpha Factors	Significant physiological setting factors such as drugs

TABLE 2

"BEST IDEA" Assessment Rules

Step in Hierarchy	Description
1.0	Determine which primary factors affect student's career development behaviors
1.1	Identify and define concretely Alpha Factors, if any exist in the individual's case
1.2	Identify and define concretely Developmental Level of the individual
1.3	Identify and define concretely Economic and Societal Factors that affect the individual
1.4	Identify and define concretely Interpersonal Relationships associated with the individual's career development
2.0	Determine which secondary factors affect student's career development behaviors
2.1	Identify and define concretely Behaviors related to the career development of the individual
2.2	Identify and define concretely Self-Talk related to career development Behaviors
2.3	Identify and define concretely Thoughts related to career development Behaviors and Self-Talk
2.4	Identify and define concretely Emotions related to career development Behaviors, Self-Talk, and Thoughts

The Case of Rhoda B.

MULTIMODAL CAREER ASSESSMENT CHART

	STRENGTHS	EXCESSES/DEFICITS
BEHAVIOR	Information seeking behavior ("seeing a counselor")	Job acquisition and maintenance problems ("getting and keeping a job"). Deficits in grooming and dressing. Excessive staring during interview.
EMOTION	Love or affection for animals	Anger over exploitation.
SELF-TALK	Motivational self-talk including "I want to do something with my life."	Negative self-talk including "I'm a falure" and "No one would hire me."
THOUGHT		Excessive thoughts and day dreams about powerful, protective father
INTERPERSONAL RELATIONS		Deficits in assertion skills (assumed submissive roles)
DEVELOPMENTAL LEVEL		Excessive dependency upon parents
ECONOMIC AND SOCIAL FACTORS		
ALPHA FACTORS		Substance abuse

TM

MULTIMODAL CAREER ASSESSMENT CHART

	STRENGTHS	EXCESSES/DEFICITS
BEHAVIOR	Outstanding artistic abilities	Deficits in class participation and homework task behaviors. Excessive belligerent behaviors.
EMOTION		
SELF-TALK		Deficits in career planning, negative talk about school and career.
THOUGHT	Fantasies about adventurous occupations in which he wins the respect and admiration of others	Daydreams about running away.
INTERPERSONAL RELATIONS	Father encourages him to learn skilled trade.	Problems with peers and family members.
DEVELOPMENTAL LEVEL		Inconsistent childrearing by authoritarian father
ECONOMIC AND SOCIAL FACTORS		
ALPHA FACTORS		

TM

MULTIMODAL CAREER ASSESSMENT CHART

	STRENGTHS	EXCESSES/DEFICITS
BEHAVIOR		
EMOTION		
SELF-TALK		
THOUGHT		
INTERPERSONAL RELATIONS		
DEVELOPMENTAL LEVEL		
ECONOMIC AND SOCIAL FACTORS		
ALPHA FACTORS		

SEX ROLE STEREOTYPING

I. SELECTION CRITERIA

A. Suggested Prerequisite Activity/Exercise	I-1
B. Preferred Application	3.2
C. Alternate Application	3.1, 3.3
D. Related Application	NA
E. Suggested Follow-up Activity/Exercise	T-1

II. ADMINISTRATIVE CRITERIA

A. Number of participants	Large Group
B. Estimate of Time	
1. Instructor preparation	180 minutes
2. Student involvement	120 minutes
C. Location of Activity	Classroom
D. List of Required Resources	
1. Instructor Information Sheet	NA
2. Student Information Sheets	
a. Language of Sexism	v
b. Fact Sheet: Working Women	vi
3. Student Handouts	
a. Ambiguous Situation (2 pages)	vii
b. Expectations--Film Discussion Questions	ix
c. Stereotyped Messages	xi
4. Assignment Sheet	NA
5. Supplies/Equipment List	xiii
6. Pre-treatment Assessment	
a. Bem Sex-Role Inventory (Bem, S.L. Bem Sex-Role Inventory. Palo Alto,	

California: Consulting Psychologist Press, 1978)

b. Attitudes Toward Women Scale (Spence, J.T., Helmreich, R., & Stapp, J. A short version of the Attitudes Toward Women Scale (AWS). Bulletin of Psychon. Society, 1973, 2, 219-220.

7. Post-treatment Assessment NA

(Same as Pre-treatment Assessment)

8. Follow-up Assessment (Can be same as Pre- and Post-treatment Assessments) NA

9. References

a. Bem, S.L. The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 1974, 42, 155-162.

b. Bem, S.L. Sex-role adaptability: One consequence of psychological androgyny. Journal of Personality and Social Psychology, 1975, 31, 634-643.

c. Benton, D.W. A study of how women are reflected in nursing text books used to teach Obstetrics-Gynecology. Nursing Forum, 1977, 16, 268-297.

d. Carkhuff, R.R. & Berenson, B.G. The counselor is a man and a woman. Personnel and Guidance Journal, 1969, 48, 24-28.

III. DESIGN CRITERIA

A. Objective: After completing the activity, the student should be able to identify examples of sex role stereotyping in print and audiovisual media.

B. Directions: Read the Student Information Sheets, "Language of Sexism" and "Fact Sheet: Working Women;" the Student Handouts, "Ambiguous Situation" and "Expectations, Film Discussion Questions;" and as much of the Program Guide, Facilitator Manual, and References, as possible.

Secure ample copies of the information sheets and handouts,as well as, the pre-treatment assessment forms, if pre- and post-tests will be conducted. Obtain the videotape, and player, newsprint, and one marker for every two students.

Form groups of four persons and conduct the exercises as described in the Facilitator Manual and Participant Materials. Complete the exercises in the following order: Ambiguous Situation (15 minutes). The role modeling exercise may be adapted in order for students to explore the nursing role in the dyads. Each student in the dyad would, in turn, write the likes and dislikes described by the other and then record the similarities and differences of the person and their role model.

The instructor may wish to ask, "How are you similar to your role model?" and "Would you like to be more or less different than the model?" Conclude the activity with a brief lecture which summarizes the learning of the activity and emphasizes the necessity of possessing both masculine and feminine characteristics.

STUDENT INFORMATION SHEET

THE LANGUAGE OF SEXISM: A BUSINESSPERSON'S SAMPLER

> ***"A language is not merely a means of communication; it is also an expression of shared assumptions. Language thus transmits implicit values and behavioral models to all those people who use it. When basic assumptions change, the idioms which express them become obsolete."***
>
> **Elizabeth Burr, Susan Dunn, Norma Farguhar**
> **"Women and the Language of Inequality"**

Whereas . . .

1) A businessman is aggressive	A business woman is pushy.
2) He is good at details	She is picky.
3) He has authority	She is bossy.
4) He is feeling low (or hung over) so handle with care	She is moody, so it must be "her time of the month."
5) He follows through	She doesn't know when to quit.
6) He stands firm	She is hard.
7) He drinks to ease work load	She is a lush.
8) He isn't afraid to say what he thinks	She runs off at the mouth.
9) He is a powerhouse	She is power-mad.
10) He climbed the ladder of success	She slept her way to the top.

(This resource is from Boethel, M., Burton, P., & Miller, B. Together we can: An awareness training program in sex-role stereotyping for community groups, school volunteers, and parents. Women's Educational Equity Act Program. Newton, Massachusetts: Education Development Center, 1979.)

FACT SHEET: WORKING WOMEN

- **Nearly 48 percent of all women in the United States—a total of 38.6 million women—now hold jobs or are actively looking for jobs.**
- **More than half (57.7 percent) of women who work outside the home are married. Another 19 percent are widowed, divorced, or separated; 23.3 percent are single. A majority of these women are working because their families need the money.**
- **Studies show that 9 out of 10 girls in school today will work outside the home at some time in their lives.**
- **Women workers earn only 59 percent as much as men earn, a gap that is wider now than twenty years ago.**
- **The average salary for women teachers in secondary schools is only 81 percent of that of men; female scientists earn 76 percent as much as male scientists, and female engineers 85 percent as much as male engineers.**
- **More women still work as secretaries and food-service workers than in any other occupations.**
- **In measuring 22 inherent aptitude and knowledge areas related to job skills, a research laboratory found that there is no sex difference in 14 areas, women excel in 6, and men excel in 2.**
- **Among all families, about 1 in 8 is headed by a woman; almost 3 out of 10 black families are headed by women. Of all women workers, 1 out of 10 is a family head; 1 out of 5 minority women workers is a family head.**
- **Among all poor families, more than 2 out of 5 are headed by women; almost 2 out of 3 poor black families are headed by women.**
- **Fully employed women high school graduates (with no college) have less income on the average than fully employed men who have not completed elementary school.**

(This resource is from Boethel, M., Burton, P., & Miller, B. Together we can: An awareness training program in sex-role stereotyping for community groups, school volunteers, and parents. Women's Educational Equity Act Program. Newton, Massachusetts: Educational Development Center, 1979.)

NOTE: ***This information was taken from a publication of the U.S. Department of Labor Women's Bureau, and from a Newsweek report titled "Women at Work," December 6, 1976, p. 68.***

AMBIGUOUS SITUATION

A parent is preparing dinner and a three-year-old child rushes in crying with a serious cut. The parent realizes that the child must be taken to the emergency room immediately, calls a neighbor to stay with the other two preschool children, puts the child into the car, and pulls out of the driveway. Just then the child's other parent arrives home.

(This resource is from Boethel, M., Burton, P., & Miller, B. Together we can: An awareness training program in sex-role stereotyping for community groups, school volunteers, and parents. Women's Educational Equity Act Program. Newton, Massachusetts: Educational Development Center, 1979.)

AMBIGUOUS SITUATION

QUESTIONS

1. What did you assume, if anything, about the first parent (the one at home)? Male or female? What were your reasons for your assumption(s)?

2. What did you assume, if anything, about the second parent? What were your reasons for your assumption(s)?

3. Did you picture the hurt child as female or male? If so, what were your reasons for your assumption?

4. Do your answers tell you anything about your picture of the family? of males? of females? of children? of yourself?

EXPECTATIONS

FILM DISCUSSION QUESTIONS

? Which scene in the film seemed the most familiar to you?

? Are there scenes/incidents in the film that you have experienced yourself?

? Which scene did you feel most comfortable with?

? Were you uncomfortable with any of the characters' behaviors in any scenes? Which ones?

? Were any of the characters' behaviors surprising to you?

(This resource is from Boethel, M., Burton, P., & Miller, B. Together we can: An awareness training program in sex-role stereotyping for community groups, school volunteers, and parents. Women's Educational Equity Act Program. Newton, Massachusetts: Educational Development Center, 1979.)

STEREOTYPED MESSAGES

_____ 1. Boys are physically stronger than girls.

_____ 2. Girls are weak and need to be protected.

_____ 3. A good education is essential if a man wants a successful career.

_____ 4. "He got his PhD., and she got her Mrs. degree."

_____ 5. Female workers are less reliable than male workers.

_____ 6. Men are more responsible than women.

_____ 7. Men are more logical than women.

_____ 8. Women are more emotional than men.

_____ 9. Young ladies don't whistle.

_____ 10. Gentlemen open doors; ladies go first.

_____ 11. Boys are naturally more independent than girls.

_____ 12. Girls are naturally more dependent than boys.

_____ 13. Boys need a firmer hand than girls.

_____ 14. Girls are more obedient than boys.

_____ 15. Men don't make passes at girls who wear glasses.

_____ 16. No girl would be caught speaking to a 97-pound weakling.

_____ 17. A college education is more important to a man's future than to a woman's.

_____ 18. A woman needs to prepare herself to be a wife and mother.

_____ 19. Big boys don't cry.

_____ 20. Every woman needs to have a good cry now and then.

_____ 21. Women take longer to make up their minds than men and then they change them.

_____ 22. Men make reasoned decisions and stick to them.

_____ 23. Behind every successful man there's a good woman.

_____ 24. The man is the breadwinner in his family.

_____ 25. The way to a man's heart is through his stomach.

_____ 26. Win her with roses.

(This resource is from Boethel, M., Burton, P., & Miller, B. Together we can: An awareness training program in sex-role stereotypoing for community groups, school volunteers, and parents. Women's Educational Equity Act Program. Newton, Massachusetts: Educational Development Center, 1979.)

SUPPLIES/EQUIPMENT LIST

1. Ingram, G., Boethel, M., Chapa, O.E., Iscoe, L., Lee, S., & Miles, M. Together we can: An awareness training program in sex-role stereotyping. Program Guide. Newton, Massachusetts: Education Development Center, 1979.
2. Boethel, M., Burton, P., & Miller, B. Together we can: An awareness training program in sex-role stereotyping for community groups, school volunteers, and parents. Facilitator Manual. Newton, Massachussetts: Education Development Center, 1979.
3. Boethel, M., Burton, P., & Miller, B. Together we can: Participant Materials. Community Group Modules. Newton, Massachussetts: Education Development Center, 1979.
4. Women's Education Equity Act Program, U.S. Department of Health, Education, and Welfare, Office of Education. Expectations. B&W Video cassette. Newton, Massachusetts: Education Development Center, 1979.
5. Videocassette player. Beta format.
6. Newsprint
7. Markers

STRESS MANAGEMENT

I. SELECTION CRITERIA

A. Suggested Prerequisite Activity/Exercise	S-1
B. Preferred Application	1.2
C. Alternate Application	1.1, 1.3, 1.4
D. Related Application	4.2
E. Suggested Follow-up Activity/Exercise	s-1

II. ADMINISTRATIVE CRITERIA

A. Number of Participants	Large Group
B. Estimate of Time	
1. Instructor preparation	120 minutes
2. Student involvement	120 minutes
C. Location of Activity	Classroom, Home
D. List of Required Resources	
1. Instructor Information Sheet	v
2. Student Information Sheet	xvii
3. Student Handout	xix
4. Assignment Sheet	xxiii
5. Supplies/Equipment List	xxv
6. Pre-treatment Assessment	

a. The Social Readjustment Rating Scale (Holmes, T. & Rahe, R.H. The Social Readjustment Rating Scale, Journal of Psychosomatic Research, 1969, 11, 213-218.)

b. C-S Scale (Ball, S., Hannaford, C., & Southern, S. Research form. Commerce, Texas: Department of Psychology, East Texas State University, 1980)

c. Other possible measures include the
State-Trait Anxiety Inventory, 16 PF, and
Taylor Manifest Anxiety Scale.

7. Post-treatment Assessment

State-Trait Anxiety Inventory (Spielberger, C., Gorsuch, R., & Lusheme, R. State-Trait Anxiety Inventory, Palo Alto, California: Consulting Psychologists Press, 1970)

8. Follow-up Assessment

C-S Scale

9. References

See Instructor Information Sheet

III. DESIGN CRITERIA

A. Objective: After completing the activity, the student should be able to apply at least one stress management technique in the home.

B. Directions: Read the Insturctor Information Sheets, Student Information Sheet, Student Handouts, Assignment Sheet, and other resources. Secure ample copies of the student materials and the instruments for pre-test, post-test, and/or follow-up. Distribute copies of the materials in the following order: pre-test, "Stress Management Workshop: Notes and Suggestions," stress brochure or resource (see Supplies/Equipment List), "Cleaning Up the Things We Say to Ourselves," "How to Stop Worrying," relaxation brochure or resource, Assignment Sheet, post-test, follow-up test (if desired).

Prepare a 60 minutes lecture from the "notes for Stress Management Presentation" and resources from the "Selected References." The instructor may wish to secure copies of the transparency masters and other resources noted on the Supplies/Equipment List, as well. Focus upon the physiology of stress, the potential negative health effects (perhaps, including coronary heart disease) the psychology of stress, life change and coping, cognitive appraisal of stress, and stress management. Use at least the one transparency (master) provided to discuss the definition of stress, managing stress,and the Social Readjustment Rating Scale scores. Make reference to specific statements included in the Student Information Sheet, "Stress Management Workshop: Notes and Suggestions," and the stress brochures or other resources (see Supplies/Equipment List).

After covering the etiology of stress, especially the relationship between cognition and stress, ask for examples of real-life stressors in the work of the nurse or day of the typical nursing student. Evaluate the example in terms of cognitive behaviors (primarily, antecedents) and the effects and consequences. Shift from a lecture format to a workshop or discussion-group arrangement of chairs.

Distribute copies of the first handout, "Cleaning Up the Things We Say to Ourselves." Read or paraphrase the information and instructions for the exercise. Conduct this individual exercise as a demonstration. Then, distribute copies of "How to Stop Worrying...and Go to Sleep." Follow the steps on the handout to demonstrate this technique.

Depending upon the amount of time available and the interests of the instructor, demonstrations of muscular relaxtion, relaxing imagery, or biofeedback may capture the interests of the group. Often, exploration of these techniques will result in requests for individual services.

If the State-Trait Anxiety Inventory were administered as a pre-test, it can be administered immediately after the workshop of at the beginning of the next class meeting. The other instruments should be treated as longer-range outcome measures.

Complete this activity by distributing copies of the Assignment Sheet, setting a due date for its return, and/or by supplying copies of the student materials for Exercise S-1, a good follow-up to the in-class training.

INSTRUCTOR INFORMATION SHEETS

Notes for Stress Management Presentation

I. Physiology of Stress

A. Autonomic Nervous System - SNS & PNS

1. "autonomic" thought "automatic" until approximately 15 years ago when Neal Miller and others demonstrated voluntary control over ANS functions.

2. Stress may be defined as the chronic or excessive activation of the sympathetic nervous system with dysfunctional physiological and psychological effects ("dysfunctional" in sense that effects interfere with efficient daily behaviors)

3. In his work on Homeostasis, Walter Cannon in 1932 described stress as emergency response capability characterized by generalized neuroendocrine activation which prepares the person to fight or flee from danger.

4. Cannon's monumental Wisdom of the body discussed the balance of human functioning between digestive/nutritive, relaxing, and restoractive activities (PNS activites) and emergency response, enabling activities (SNS activities)

5. Frances Leukel discussed stress disorders as an imbalance between ergotropic (SNS) functions and trophotropic (PNS) functions.

6. While "fight or flight" impulses had considerable survival value for primitive human, chronic or excessive cueing of these impulses in modern life present major physical and mental health problems.

7. Danskin, a biofeedback specialist, reported that modern humans may experience from 50 - 200 emergency responses daily.

B. Responses of the Body (Show transparencies)

1. Sensory input is organized in the extrinsic thalumus, a specialized anatomical site of the diencephalon of the forebrain

2. Emotional decision-making through integration of sensory impulses occurs in the hypothalamus through linkage of subcortical and telenceplalic sites via the anterior cortical fibers, cingulate gyrus, and prefrontal granular cortex

3. "Higher cortical activity" is involved in emotional motivation by means of complex interactions of the medial forebrain bundle and the amygdaloid nucleus

4. In accord with arousal-drive perspective regarding adaptation to stress, the hypothalamus is specialized with respect to function:

a) Trophotropic centers in anterior and medial hypothalamus are involved in quiescence, digestion, and other PNS functions

b) Diffuse neurons in lateral hypothalamic area are responsible for offensive attack or aggression

c) Dorsomedial nucleus mediates defensive attack

d) Posterior hypothalamus is involved in stress-adaption reponse to fear

5. Hypothalamus acts as lead ganglion of ANS in mobilizing body to deal with emergency through integrated activation of sympathetic chain ganglia (transparency)

a) Ergotropic functions take precedence over trophotropic functions at different anatomical sites

b. Major sympathetic effects are pupil dilation, increase in heart rate and contractility, general constriction of blood vessels, increase in contraction of sphincters, secretion of sweat and thick saliva

c) Veins from hypothalamus flow through the anterior pituitary via the infundibulum

d) Generalized sympathetic arousal is accomplished through the pituitary's "master gland function: upon the endocrine glands

e) Through its release of ACTH, the adrenal medulla, highly specialized post-ganglionic structures, release epinephrine and norepinephrine directly into the blood stream in endocrine-glandlike manner

C. Negative Health Effects

1. According to Hans Selye, who wrote the seminal work The Stress of Life in 1956, chronic discharge of ACTH by the pituitary leads to excessive secretion of corticoids by adrenal cortex

a) Excessive secretion leads to adrenal cortex enlargement, atrophy of thumus gland and lymph nodes, and appearance of gastrointestinal lesions

b) This sterotypical response pattern observed in many laboratory animals under diverse stress conditions led Selye to hypothesize the existence of a "General Adaptation Syndrome"--(will recieve more attention in psychology of stress discussion)

2. In 1961, Wilhelm Raab and associates substantiated the sympathetic origin of myocardial lesions which occured through interaction of corticoids and excessive nonepinephrine concentration in the myocardium (Reflex hypothalamic stimulation elicits discharges of adrenergic catecholamines from the adrenal medulla and from the peripheral sympathetic nerve terminals--manifested by augmentation of plasma catecholamine levels.

3. Physiological stress syndrome also manifested by significant increases in plasma triglyceride, cholesterol, lipoprotein, and growth hormone--especially in individuals prone to exhibit hyper-reactive behaviors in response to stressor (coronary-proneness)

4. Negative health effects associated with high stress include:

   ulcers, headaches, colitis, muscular tension, chronic pain, rash, constipation or diarrhea, tics, insomnia, indigestion, asthma, fainting, fatigue, anxiety, depression, phobia, restlessness, sexual dysfunction, and lifestyle disorders (eating, smoking, and drinking problems)

5. Socio-behavioral effects include aggression, withdrawal, preoccupation /w self or problems, deficits in concentration or memory, inability to effectively study or work, etc.

6. Hurst, Jenkins, & Rose (1976) discussed the relationship of stress to the onset of illness

   a) Psychological stress and incidence of stressful life events have been linked to the onset of coronary heart disease and cancer

   b) Anxiety and depression associated with onset of angina pecoris, myocardial infarction, and congestive heart failure (ischemic heart disease)

   c) Loss of loved one or major emotional relationship associated with onset of cancer (especially, cervical cancer, leukemia, and lymphoma)

7. Type A coronary-prone behavior pattern represents maladaptive, injurious responses to stressful events

   a) Type A pattern consists of high job/professional involvement, speed and impatience, hard driving and competitive behaviors, aggressiveness, high achievement orientation, "work addiction," measuring success in terms of quantity rather than quality, perfectionism, and guilt over relaxation

   b) In various studies (e.g., Friedman and Rosenman, 1974, Friedman et al., 1975; Glass 1977; Jenkins, Zyzanski, and Rosenman, 1976; Rosenman et al., 1975; Simpson et al, 1974) Pattern A has been conclusively linked with increased risk for heart disease through physiological changes associated with chronic or excessive sympathetic activation

   c) Pattern A is a better predictor for the incidence or manifestation of CHD than any combination of traditional risk factors such as sex (being male), diabetes, obesity, high serum cholesterol, heavy cigarette smoking (20+ per day), family history, etc.

   d) Chronic arousal and hyper-reactivity characteristic of Pattern A yield excessive sympathetic nervous system functioning--i.e., high plasma levels of catecholamines. These substances especially nonepinephrine, potentiate the platelet aggregation which contributes to atherosclerosis, coronary artery disease. Nonepinephrine stimulates production of phosphorylase kinase which converts adenosine triphospate ATP into ADP plus mechanical energy. ADP in the presence of excessive nonepinephrine facilitates platelet clumping and cholesterol impregnation in life-threatening arterial plaques.

e) Because of their habitual responses to real and perceived stresses, Type A individuals are twice as likely as Type B individuals to experience heart disease. Types A in high-responsibility (very stressful) occupations are significantly at risk for myocardial infarction and premature death.

D. The Outcomes of Negative Health Effects

1. Occupational stresses and problems contribute to accidents, low productivity, high personnel turnover, and alcoholism and substance abuse

    a) A minimum of 10 percent and as many as 25 percent of the workforce in business and industry have severe phychological problems that interfere with work. These problems usually arise from job- or family- related stresses. (See Weiner, Akabas, & Sommer, 1973)

    b) As many as 8 percent of the workforce are alcoholics or problems drinkers. At least $15 billion is lost annually due to absenteeism, medical expenses, accidents, increases insurance costs, and deteriorating job performance (Googins, 1975)

2. Similarly, in education, the negative effects of stress contribute to losses to individuals and the economy.

    a) 56.6% of 5500 members of the Chicago Teachers Union claimed physical or mental illness as result of job.

    b) Stresses such as assaults by students, disagreements with administrators, paperwork pressures, isolation, too many students led to absenteeism, alcoholism, and abondonment of the teaching profession (teacher burnout)

    c) Stress in students likely contributed to the 70,000 physical assaults upon U.S. teachers least year (see Southern & Smith, 1979)

    d) Tacoma Association of Classroom Teachers won stress insurance for members--after all leave used they can receive 60% salary (tax free: 90% actually)

II. PSYCHOLOGY OF STRESS

A. In 1956, Hans Selye produced one of the major works in the field, The Stress of Life.

1. He described the General Adaptation Syndrome (GAS) as the stereotypical non-specific responses of the body to demands that upset the internal homeostasis of the organism.

2. In addition to aforementioned nagative health effects, the following stages of stress responses occur.

    a) alarm stage: hypothalamus--pituitary--adreno--cortical action (sudden death may occur)

    b) adaptation (resistance) stage: return to dynamic homeostasis

    c) exhaustion stage: depletion of adaptive energy through chronic exposure to stressors--lesions

B. Thomas Holmes, Richard Rahe, & others defined stress in terms of recent life events that require adaptation or adjustment on the part of the individual.

1. Modifying the "life chart" approach of Adolf Meyer, an American psychiatrist who pioneered the study of life events and health changes, Holmes & Rahe developed several instruments for measuring life change and conducted extensive research.

2. The research, summarized by Dohrenwend & Dohrenwend (1974), related life change to the onset of minor & major illnesses to psychiatric disorders, to poor academic and job performance (athletes and military personnel).

3. Holmes & Rahe developed and validated the Social Readjustment Rating Scale to predice the impace of life change upon health/illness (DISTRIBUTE SRRS & EXPLAIN).

4. Sum of Life Change Units have been associated with onset of illness.

    a) mild crisis (150-199 LCU)—— 37% of respondents experienced one or more illnesses within year of administration.

    b) moderate life cirsis (200-229 LCU)—— 51% of respondents.

    c) major life crisis (300+ LCU)—— 79% of respondents.

C. Person-in-Environment Model

1. Although such formulations as the Type A coronary prone behavior pattern suggest stereotyping in stress responses, the person-in-environment model explains why only some individuals who are exposed to stressor experience illness or distress.

2. Appley & Trumbull (1965) in their major work *Psychological Stress* presented the situational specificity argument.

    a) Different individuals respond to the same stimulus event in different ways.

   b) The context intensity and duration of the exposure have differential effects upon individuals.

   c) Psychophysiological response patterns may be consistent at the intra-individual level but vary widely at the inter-individual level.

3. Raymond Novaco of the University of California at Irvine developed a model for Stress & Anger which emphasized the person-in-environment model. He emphasized cognitive variables. (SHOW & DISCUSS TRANSPARENCIES: (1) Cognitive appraisal process; (2) Determinants of anger)

4. Working definition of stress... "state of imbalance between the demands of the environment and the response capabilities of the person."

D. Cognition & Stress

1. Myth of the "immaculate perception" Michael Mahoney of Pennsylvania State University.

   Not $S_D \rightarrow R \rightarrow S$ but $S_D \rightarrow O \rightarrow R$
   and characteristics of consequence subject to appraisal
   $R \leftrightarrow S$

2. Observing and labeling behavior defines emotion/stress--eg. derivation of Schacter & Singer's work.

3. Richard Lazarus of University of California at Berkeley had greatest influence upon cognitive appraisal approach to stress.

   a) Primary appraisal--environmental stimuli act as cues for appraising agent or event as "threatening"

      1) locatability & immedicacy of stressor

      2) motivation of individual, generalized beliefs, and learning history

   b) Secondary appraisal--identification of personal cognitive and behavioral resources to cope with identified stressor.

4. Coping responses may be adaptive or maladaptive, depending upon whether they relieve or ameliorate stress. Some responses engender greater stress.

5. Self-regulation (self-control), sense of power, and internal locus of control operate during secondary appraisal and influence selection of adaptive stresses.

6. Coping may include planning, problem-solving, self-control, assertion, skillful action, cognitive restructuring, etc. or anxiety, withdrawal/avoidance, anger, aggression, & disorganization.

E. Effects of Chronic or Excessive Stress

1. Inability to escape stress not only can lead to negative health consequences but may also lead to "learned helplessness" (Seligman, 1975) and death (Schmale, 1972)--"final common pathway to illness and death."

2. Initially, individuals who are unable to overcome stress through instrumental behaviors become hyper-responsive as is typical of the coronary-prone behavior pattern. That is, they will strive even harder to regain control over a threatening environment.

3. After chronic exposure to stress, the individual may "give up" and exhibit symptoms of "learned helplessness" or depression.

4. Weiss, Stone, and Harrell (1970) reported the depletion of brain NE associated with "learned helplessness" in yoked rates.

III. Stress and Anger in the Classromm (Example of Stress System)

A. Stressors for teacher include grading, record-keeping, serving on committees, sponsoring co-curricular activites, having conferences with parents, pursuing continuing education.

1. If generalized belief system of teacher is negative--seeing school or administrators as punitive or insensitive--then more likely to assessed as stressful.

2. Minor confrontations with students and co-workers accumulate.

B. Stressors for students include sense of lack of power, peer pressure, problems at home, stimulus ambiguities in classroom (inconsistent teaching).

1. Lack of self-regulation may lead to out-of-control behaviors.

2. Out-of-control behaviors include poor attendance, tardiness, exaggerated humor, disrespect, blatant rule violation, vandalism, alcohol, and drug abuse.

3. Out-of-control students present stressors for teachers who then may exhibit arbitrary rule-making, aggression, and other behaviors which cue more stress-related excessive behaviors in students--anger and aggression are outcomes of this vicious cycle.

IV. Managing Stress

A. The ordinary stresses of life can be beneficial.

1. Novel stimulation encourages active inquiry and imagination.

2. Challenges can act as motivators for superb performance and individual excellence.

3. Therefore, all stress should not be eliminated. In fact, the fallacy, that stress can be overcome or mastered contributes to additional stress. All techniques should be directed at stress management rather than stress mastery.

b. Restructuring Environment

1. Change physical environment to render it more comfortable, conducive to relaxation and coping, and interesting (e.g., rearrange office, buy picture, use comfortable couch for personal conversations and breaks).

2. Control setting events that contribute stress (e.g., get enough sleep, discontinue drinking that causes arguments at home).

3. Modify routines and procedures within organizations to encourage communication among all members of system.

4. Schedule exercise, relaxation, and pleasant events every week.

5. Use individual contracts or action plans and time management techniques to gain control over life in rapidly moving, changing society.

6. Encourage friend, spouse, or lover to help personal restructuring efforts by designing joint contracts/plans and exchanging rewards for complying with terms of agreement.

C. Relaxation Training/Anxiety Management Training

1. Cite contributions of Arnold Lazarus, Edmund Jacobson, Thomas Budyzinsky, Marvin Goldfried, and Herbert Benson.

2. Secularized Transcendental Meditation--Benson's relaxation response

Four Basic Elements

1) quiet environment
2) an object to dwell upon (a word, sound, something to concentrate upon)
3) a passive attitude, emptying mind of thoughts and directions
4) comfortable position

3. Relaxation components → Show AMT transparency → (1) reduce muscular tension, (2) deep breathing, (3) cognitive relaxation.

4. Mention deep relaxation as effective as hypnosis--Cite Kroger & Fezler (1976) → imagery reconditioning.

5. Using transparency, discuss Anxiety Management Training which was developed by Richard Suinn of Colorado State University.

D. Stress Inoculation Training (Transparencies)

1. Refer to Ellis' 11 irrational beliefs.

2. Emphasize contributions of Donald Meichenbaum of the University of Waterloo

3. SIT consists of 1) Relaxation Training, 2) Restructuring Self-Talk ("cleaning up the things we say to ourselves" according to Mahoney), 3) application of coping self-statements in stressful situations in real life (natural environments)

E. Effective Problem-Solving (Optional: distribute handouts)

1. Use of creative, systematic processes for identifying problems and organizing strategies for reducing effects of stress

2. Mention work of D'Zurilla & Goldfried (1971)

F. Other Techniques

1. Behavioral Self-Management - Richard Stuart, Carl Thorensen, Michael Mahoney (using strategies to increase actual and perceived self-control)

2. Psychological Education - Alschuler, Ivey & Hatcher (1977), Thomas Skovholt (1977) and Robert Smith (ETSU) (use of structured learning experiences to increase knowledge about relationship of stress and illness and building health behavior skills)

3. Instigative Therapy - Kanfer & Phillips (1970) John Shelton & Rona Levy (1979) (using systematic behavioral assignments in natural environments to increase generalization and maintenance of treatment gains--treatments including workshop, counseling, self-help book would act as discriminative stimuli for practice outside actual treatment setting)

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STUDENT INFORMATION SHEET

STRESS MANAGEMENT WORKSHOP:
Notes and Suggestions

I. Stress

A. Stress is a term which refers to a class of human experience which includes physiological, psychological, and behavioral variables.
B. The physiology of stress involves general arousal of the body through action of the sympathetic nervous system.
C. The psychology of stress primarily involves the adaptation of the individual to a series of life changes.
D. The behavioral perspective regarding stress emphasizes the role of cognitive appraisal and coping as responses of the person to threat or challenge.
E. Stress was defined in this workshop as a state of imbalance between the demands of the environment and the response capabilities of the person.

II. Effects of Stress

A. Coping with environmental stressors can be adaptive or maladaptive, efficient or inefficient, depending upon the situation of the person.
B. Stress itself is neither good nor bad; in some situations, stress can act as a motivator or be viewed as beneficial.
C. Coping behaviors include anxiety, avoidance, withdrawal, planning, problem-solving, assertion, anger, and skillful action.
D. Chronic exposure to stressful situations may lead to negative health effects such as depression and illness.
E. The negative health effects associated with stress occur when the individual is hyper-reactive and, therefore, excessively aroused and when a person "gives up" after sensing a lack of control over a demanding environment.
F. Some of the negative effects of stress are greater risk for diseases such as coronary heart disease, nagging physical symptoms such as headaches and acid stomach, and personal/occupational inefficiency such as "fire fighting."
G. Maladaptive management of stress has been compared to a locomotive which is racing at full steam and heading for a breakdown.

III. Stress Management

A. In order to manage or control stress, individuals may focus upon modifying their immediate environments, changing their expectations or appraisals (cognitions) regarding stressors, or regulating the physiological responses to stress.
B. Learning to physically and "mentally" relax is a major requirement for effective stress management.
C. Relaxation involves "letting go" or temporarily halting attempts to control and compete through exercise, deep breathing, engaging in hobbies and pleasant events, meditation, prayer, and related activities.
D. Stress management also involves lifestyle modification by changing the "things we say to ourselves about stress" and reorganizing our environments and daily routines.

STUDENT HANDOUT

Cleaning Up the Things We Say to Ourselves

Many of the harmful effects of stress originate in the negative self-talk which persons sometimes use in threatening situations. For example, an individual generally does not do well on a test (and may not feel well later) if the self-talk, "I'm dumb; I'll probably fail this test," occurs while walking into class. On the other hand, the individual can score the best after preparing oneself by saying "I'm a good student and I'll do the best I can."

We need to be our own "best friends" because our friends usually tell us the true things that are good about us. You can "clean up the things you say to yourself" and reduce your stress by substituting positive for negative self-talk--by being your own best friend. Complete the following exercise to clean up your stress-engendering negative talk.

1. On the copy of the blank card which your instructor gave you, write three things that are good about you--or that you do well... or like about yourself, etc. Be as specific as you can.
2. If you are having trouble thinking about a single good thing, then you are probably depressed. Poor self-image and low frequency of positive self-talk are associated with clinical depression.
3. If you wrote down one or more things that other persons have told you, but you really don't believe, then your standards are likely too high. For example, if you write "I sing well"and then caught yourself thinking "I don't sing that well because I know some very good singers," you are being too hard on yourself. In addition, you cause some of your stress by using external standards to determine self-satisfaction.
4. After writing the three statements, choose one about which you are least confident (especially, the statements mentioned in #3) and write it on the back of the card.
5. Now make a deal with yourself. Over the next week before you allow yourself to drink water, drink other beverages, eat meals or snacks, use the restroom, or engage in any frequently occuring, natural activity, take the card from your pocket or purse and read the statement. This will strengthen or reinforce the positive self-talk. It will become more potent and believable.

6. By using this technique to strengthen good, positive self-talk, you are creating a powerful tool for yourself. The next time you begin a potentially threatening task, such as giving a report before the class, take out your card (or think about the statement on the card) and it will make you feel stronger and more confident. You may notice a smile coming across your face as you read the thing that is good about you...as you become your best friend.

7. Try to clean-up your self-talk and then use this tool to de-fuse stress in the future.

STUDENT HANDOUT

How to Stop Worrying...and Go to Sleep

One of the reasons that people have trouble going to sleep is worrying. If you have ever considered worrying a problem, then you know how fears or bothers seem to just come into the head (or awareness), how they seem to go on and on, and how you eventually even begin to worry about worrying. While you may sense that your thinking is out-of-control, you actually can do a lot to control worry behavior.

Worries are really just internalized sentences or self-talk. Sometimes, they seem vague and impossibly long; however, you will find that worries are discrete, indentifiable units of self-talk. For example, you tell yourself "The test will be hard," then you say "I'll probably flunk," then "I'll be thrown out of school," and perhaps "My family will think I'm a failure." This particular string of worry talk is called "catastrophizing" because you believe things are getting worse as the severity of your talk increases. This process seems automatic because the units of self-talk occur so quickly. Try to imagine that you could control worrying if you could only "punctuate" those internalized sentences.

1. Take the rubber band that your instructor has given you and place it on your left wrist.
2. Remember a time when you worried about something important. After you recall each internalized sentence, punctuate it by snapping the rubber band on you wrist.
3. You should also count each worry as you punctuate it. By doing this, you a breaking down a string of worries into managable units.
4. After a few moments, you will notice that you are in control of your thoughts. If you can punctuate and count worries, then you are controlling them.
5. In a few more moments, you will have broken the string of worries (by use of this reactive assessment), and you can go to sleep or to do whatever you need--because this technique can be used at any time.

6. If the worries seem to persist, you may wish to pop the rubber band a bit harder (without huring yourself) and to imagine screaming as loud as possible "Stop!" or "Get out!" when you punctuate the worry. You can make the technique even more powerful by actually imagining a stop sign or the word "out" written in flashing neon letters.

7. Thought stopping can be very helpful in controlling those tough worries like jeolousy which are so stressful and unproductive. Try the punctuating, counting, and stopping the next time you are troubled with worries. Then, give yourself a good night's sleep.*

---

*If you have experienced difficulty in sleeping over a long period of time, try sleeping on the other side or end of the bed before you start the aforementioned technique. Should sleeplessness persist, rearrange your room, then your self-talk.

ASSIGNMENT SHEET

In order to change any of the behaviors which relate to or contribute to stress and tension, you must practice in the home. For a least one week, please try one or more of the stress management techniques in your home (or some other relevant setting). Write one paragraph detailing what you did and another paragraph describing the results. Sign this form before you begin and return it with the two paragraphs, which can be handwritten on a single sheet of paper.

I understand this assignment and I agree to try it.

______________________ Signature

______________________ Date

SUPPLIES/EQUIPMENT LIST

1. One or more of the following brochures:

    a. Coping with stress (Hartford, Connecticut: Keyword Publications Inc., 1977)

    b. What everyone should know about stress (South Deerfield, Massachusetts: Channing L. Bete Company, 1981)

    c. "Plain Talk" about the art of relaxation (Rockville, Maryland: National Institute of Menatal Health, 1978)

    d. "Plain Talk" about stress (Rockville, Maryland: National Institute of Mental Health, 1977)

2. Overhead project

3. Transparencies

    One Transparency Master is attached. The other masters are available from Stephen Southern, Department of Counseling Psychology, Second Floor, Weiss Hall, Temple University, Philadelphia, Pennsylvania 19122.

4. Optional: Cassette tape player and relaxation/imagery tape (Visual imagery training--Island journey. Houston, Texas: Stress Management Research Associates.)

5. Blank computer or index cards

6. Large rubber bands

7. GSR/TEMP 2 Biofeedback System (Montreal, Canada: Thought Technology, Ltd., 1978)

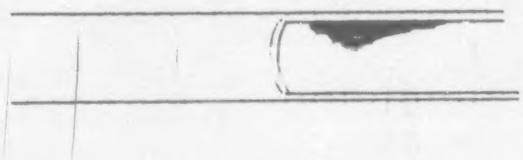
STRESS IS A STATE OF IMBALANCE BETWEEN THE DEMANDS OF LIFE AND THE PERSON'S ABILITIES TO COPE WITH THESE DEMANDS.

A PERSON CAN MANAGE STRESS. IT'S IMPOSSIBLE AND EVEN UNDESIRABLE TO MASTER STRESS OR OVERCOME ALL DEMANDS, THREATS, AND CHALLENGES.

TO MANAGE STRESS, A PERSON CAN MAKE CHANGES IN ONE OR MORE OF THE FOLLOWING AREAS OF HUMAN FUNCTIONING:

1) BEHAVIORAL. . .THE THINGS WE DO
2) COGNITIVE (MENTAL). . .THE THINGS WE THINK
OR
THE THINGS WE SAY TO OURSELVES
3) PHYSICAL. . .THE THINGS THAT HAPPEN TO THE BODY

NOREPINEPHRINE (NE)
ADENOSINE DIPHOSPHATE (ADP)
CHOLESTEROL
PLATELETS



ATHEROSCLEROSI

"HARDENING
OF
THE
ARTERIES"

STRESS AS LIFE CHANGE

MILD LIFE CRISIS	150-199 LCU	37%
MODERATE LIFE CRISIS	200-299	51%
MAJOR LIFE CRISIS	300 ↑	79%

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MULTIMODAL CAREER EDUCATION

FOR NURSING STUDENTS

Stephen Southern, Ed.D.
Project Director
Director of Counseling
Odessa College

Charles Hannaford, R.N., M.S.
Doctoral Student, Counseling Psychology
North Texas State University

Robert L. Smith, Ph.D.
Associate Professor
Department of Student Personnel and Guidance
East Texas State University

Karon Topper, M.A.
Research Associate
Odessa College

Nancy Raley, B.S.W.
Research Associate
Odessa College

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ABSTRACT

The background literature, the assessment and intervention packages, and the developmental research and utilization strategies required to implement effective multimodal career education programs for nursing students are presented. Relationships among Multimodal Behavior Therapy, career development, nursing education, and nurse retention are considered. Practical suggestions and specific resources for comprehensive, individual assessment and intervention which may be useful to human development specialists in many settings are provided.

Introduction

Multimodal career education is an instructional design model which is proposed as an approach to alleviating the shortage of nurses through systematic career development interventions. Multimodal career assessment and intervention should be implemented early in the education of nursing students in order to promote realism in career choice, readiness for clinical education, commitment to professional growth, and understanding of career as lifelong learning and personal development. The multimodal career education model is represented in the present project as a two-semester hour applied psychology course ("Personal Development") which was offered in the career ladder curriculum of a community college nursing program. However, the integrative and comprehensive approaches to human behavior manifested in multimodal career education make the model compatible with professional nursing education at undergraduate and graduate levels.

There is a trend toward comprehensive behavioral assessment and intervention in nursing process and research (Barnard, 1981). Bachelor of Science in Nursing (BSN) programs (e.g., University of Texas, 1980) emphasize the integration of physical, social, and psychological variables in patient care and health maintenance, and the development of problem solving and interdisciplinary perspectives in professional practice. Finally, the nursing profession is increasingly attending to theory and curriculum development in nursing education by focusing upon adjustment of new graduates, role transition and emergent specialization in nursing practice, individualized and innovative instruction for diverse student groups, rigorous nursing research and evaluation, and renewal of professionalization in terms of examining issues, status, and organization (see

Mirin, 1980). Therefore, multimodal career education is timely given recent developments in nursing education.

Multimodal career education addresses career development and human relations needs of new nursing students with the goals of reducing attrition in the training program and increasing retention of graduates in the workforce. Current health workforce studies (e.g., Center for Research, School of Nursing, 1980; Coordinating Board, 1980; Texas Nursing Association, 1981; U.S. Department of Labor, 1980) indicate that demand for skilled personnel exceeds supply in many areas of the country. In the hospital setting, demand for professional nurses is so critical that "bounties" or inducements are offered through conferences and placement services in order to recruit staff for sites across the nation (Haddad, Note 1). Employment of graduates of foreign nursing schools and "part-time" nurses who are employed by temporary staffing or employment agencies is one response to the shortage in Texas (Project Advisory Committee, Note 2).

Although sufficiently large numbers of nurses may be graduated, major factors in the imbalance between supply and demand are the rapid turnover and dramatic attrition rates among skilled nurses (LaRochelle, Note 3). Some nursing students leave training programs due to inaccurate assumptions regarding the clinical side of nursing (Adams, Note 4). For example, individuals may enter nursing based upon sincere desires to help people; however, communicating with terminally ill patients, working demanding shifts, and treating patients with bleeding wounds present potentially aversive realities for unprepared students. "Reality shock" in the neophyte nurse is also manifested in the incongruency of ideals and roles taught in school and the values and expectations manifested in the work setting (Schmalenberg & Kramer, 1979). Path to Biculturalism (Kramer

& Schmalenberg, 1977) seminars have proven valuable in addressing the retention problem by reducing nurse-organization conflict and enhancing individual coping and self-esteem. However, the workforce imbalance is too multifaceted for a single solution.

Other factors in the attrition of nursing students and new graduates are deficiencies in interpersonal relations and decision-making skills. Some educators and employers assume that nursing students possess requisite human relations skills when they enter training or will develop skills on the job after completing technical education (First, Note 5). Yet, deficits in assertiveness (see Herman, 1977; Project Advisory Committee, Note 2), time and stress management (Winn, Note 6), behavior analytic (behavioral assessment) skills (Project Advisory Committee, Note 2), and systems change agent skills (Davis, 1977; Grissum & Spengler, 1976; Holt, 1977) also contribute to job dissatisfaction and abandonment of career goals. Furthermore, acceptance of the traditional roles of women and failure to develop androgynous behaviors can lead to unsatisfactory relationships with supervisors, physicians, allied health co-workers, and hospital administrators (see Herman, 1977; Project Advisory Committee, Note 2). Female nurses may also act upon assumptions, based on sex bias and sex role stereotyping, which restrict their career development and impose obstacles in career commitment (see Hall, 1977; Holt, 1977; Hutchins & Colburn, 1979). Thus, the problem of retaining nurses in the workforce is a function of several personal and environmental factors which likely vary among individuals, training programs, and work settings. Career education since its inception has taken an appropriate multifaceted perspective which holds promise for solving the retention problem.

Career Education

Career education, a process-oriented, "learning how to learn" approach to lifelong development, emerged during the 1970's as a major component in the educational reform movement which addressed the needs for both greater relevance and accountability in education (Bailey, 1977; Bailey & Stadt, 1973). Career education programs have stressed systematic, comprehensive learning experiences which link the interests and abilities of the individual student with the demands and trends of the world of work (Herr & Kramer, 1976; Hoyt, Evans, Mackin & Mangum, 1974). In this manner, education becomes an individuation process that also meets the needs of the community. Instruction can be infused within existing curricula--the general rule in nursing education--or offered as a self-contained unit such as a career exploration or a personal development course. Career education should be an integral component of academic and vocational instruction in college (Harris & Grede, 1979). In nursing, the career education program would focus upon examining personal assumptions regarding clinical training, professionalism, and advancement as well as environmental characteristics of hospitals, work settings, and health care service delivery teams.

Early theorists (e.g., Ginzberg, Ginsburg, Axelrad, & Herma, 1951; Holland, 1966; Hoppock, 1967; Roe, 1957; Super, 1957) recognized that career development and maturation occur as functions of the entire person interacting with impinging environments including social structures, labor market characteristics, educational requirements, family relationships, and socioeconomic levels. Career education, in order to remain relevant and accountable, must simultaneously focus upon the personal and environmental factors. The interaction of the two classes of variables can be described as career development, a process facilitated by career education.

In recent years, counseling and therapy have focused more upon the whole person interacting with various natural environments. The cognitive-learning trend in psychotherapy (Mahoney, 1977) is one example of an attempt to integrate personal and environmental factors in a treatment perspective. Holistic health (e.g., Tubesing, 1979) and behavioral medicine (e.g., Schwartz & Weiss, 1978), with the foci upon psychological and sociological influences in health and illness, represent other examples of this integrative movement in human services delivery and research. In fact, the description of the domain of behavioral medicine promoted by Pomerleau and associates (Pomerleau, 1979; Pomerleau & Brady, 1979) and accepted by some nursing professionals (see Barnard, 1981; Mastria & Drabman, 1979), emphasizes the influence of nurse behavior (and its modifications) in the hospital upon patient outcomes and ward practices. One of the most comprehensive assessment/treatment models which embodies this interactional perspective is the broad-spectrum "multimodal behavior therapy" of Arnold Lazarus.

Multimodal Behavior Therapy

Multimodal behavior therapy (Lazarus, 1973, 1976) is guided by the acronym, "BASIC ID." Seven areas of human functioning, or modalities, are designated by "BASIC ID:" Behavior, Affect, Sensation, Imagery, Cognition, Interpersonal Relations, and Drugs. The "Drugs" modality was later modified to include a variety of physical factors which seriously affect functioning--e.g., diet and exercise (Gerler, 1979; Lazarus, 1976). Two basic tenets of multimodal behavior therapy suggested its potential value as a model for career counseling.

The major appeal of the BASIC ID for career counseling is its comprehensive focus as an assessment device. The model requires the counselor to examine seven major modalities in determining strengths and problems of clients. The second tenet of the multimodal approach is an injuction not to "muddle" or aimlessly concentrate upon only one facet of human behavior. Rather, the counselor should address concerns in as many modalities as possible, thus increasing the likelihood of maintenance and generalization of treatment gains (Lazarus, 1976).

Keat (1978) referred to the "multimodal evolution" in counseling and guidance. According to Keat (1978, p. 12), the BASIC ID represents a ". . .new way of conducting effective counseling. . .by first identifying problems and then utilizing effective intervention strategies in order to ameliorate the client's condition." Keat's adaptation of the multimodal approach is specifically directed at elementary school guidance and counseling activities. The technical eclecticism embraced by the "multimodal evolution" is concerned with efficient and effective practice at all levels through the use of the BASIC ID, or a related heuristic device, to guide assessment and intervention.

Smith and Southern (1979) adapted the BASIC ID to fit the needs of career counseling. Their multimodal career counseling model represented an application of Lazarus' (1976) assessment scheme within a systematic intervention strategy. Multimodal career counseling involves the following stages: (1) establishing the relationship; (2) screening the modalities (multimodal assessment): (3) intervening with specific, targeted modalities; (4) assigning homework and "tryout" experiences (systematic behavioral assignments and self-management training); and (5) following-up effects of counseling. The follow-up is a major stage because post-treatment multimodal assessment may indicate needs for "recycling" through preceding stages or novel problem areas.

Another adaptation of the BASIC ID directly addressed concerns in career education. Gerler's (1977) exciting approach integrated aspects of career counseling, behavior therapy, psychological education, and career development. The underlying concern of the approach is the design of career education programs by addressing each of the BASIC ID modalities.

> These programs should deal with: (a) career-related behaviors such as interviewing for jobs and information seeking, (b) the role of affect in decision making, (c) the painful and pleasurable sensations associated with work, (d) the role of mental imagery in vocational development, including the part imagery plays in one's ability to relax during vocational crises, (e) the importance of cognition in vocational development, including the attitudes, values, and beliefs that affect career decision making, (f) the effect of interpersonal relations on an individual's ability to find and maintain employment, and (g) the effect of alcohol and other drugs on career development (Gerler, 1977, p. 239).

According to this approach, various training and learning experiences--drawn primarily from existing resources--would be incorporated into career education programs in order to address each of the seven modalities. While Gerler's (1977) method is comprehensive, it is not necessarily "systematic" in the sense that individual career development concerns are addressed according to unique priorities.

Multimodal career education can systematically address programmatic concerns of the institution (an environmental factor) as well as individual career development concerns (personal factors). The BASIC ID provides an excellent framework for insuring full coverage of the modalities within existing career education programs. The model can be modified additionally to promote the individualization of career development activities within innovative career education delivery systems.

The BEST IDEA in Career Education

The "BEST IDEA" acronym refers to an expansion of the multimodal career education model to insure that programs address individual career development needs. Although the labels of the areas have been modified, the BEST IDEA incorporates Lazarus' seven modalities, as well as other factors, within its boundary. The modalities are conceived as primary factors, setting events and referent conditions, and secondary factors, or individual responses. Primary factors must receive initial attention in individualized career development activities because these factors influence the frequencies and strengths of secondary variables. Secondary factors must be considered when the potential confounding of the setting events and referent conditions has been eliminated. In fact, work with primary factors may be effective enough to reduce or suppress individual career problems expressed at the secondary level of assessment.

The BEST IDEA model is presented in Table 1.

Table 1

"BEST IDEA" in Career Education

Acronym	Factor	Description
B	Behavior	Observable actions or responses
E	Emotion	Covert behaviors or physiological arousal
S	Self-Talk	Internal speech
T	Thought	Images or fantasies
I	Interpersonal Relationships	Interactions with one or more persons
D	Developmental Level	Age-appropriate & special learning needs
E	Economic & Societal Factors	Cultural or socio-economic influences
A	Alpha Factors	Significant physiological setting factors such as drugs

The correspondence between Lazarus' (1976) model and multimodal career education (i.e., BEST IDEA) are apparent. The "Behavior" and

"Interpersonal Relationships" factors are the same in both approaches. The "Emotion" factors represent a combination of "Affect" and "Sensation" from multimodal behavior therapy. "Self-Talk" is a delimitation of Lazarus' "Cognition," while "Thought" stresses the so-called "mental" aspects of the "Imagery" modality. Collectively, "Affect," "Self-Talk," and "Thought" constitute a class of covert behaviors. "Behavior" represents the overt responses or operants.

The primary factors within multimodal career education account for the extensive influences of situations upon individual overt and covert behavior. Inclusion of primary factors in the BEST IDEA renders the model "complete" with respect to conditioning theory (Skinner, 1953) and somewhat more resistant to the criticisms directed at multimodal behavior therapy (e.g., Wilkins & Thorpe, 1978). "Developmental Level" and "Alpha Factors" are setting events in that such influences as learning disability (developmental level) and alcoholism (alpha factor) establish the limits of the secondary factors and affect the contingencies which maintain or suppress overt and covert behaviors. "Developmental Level" and "Economic and Societal Factors" have no parallels in multimodal behavior therapy. The facilitative and inhibitory effects of these primary factors are extremely important in career education and have received much attention in the recent literature.

Applications of the Model

Career education, as expressed in special courses or programs and as infused in traditional academic curricula, tends to include several characteristic components. Bailey (1976, p. 2) identified the ends of career education as (1) understanding and implementing self, (2) understanding and preparing for work, (3) accepting responsibility for career planning,

(4) developing skills in decision-making and information processing, (5) relating to individuals and groups, and (6) developing and clarifying attitudes and values toward work. Therefore, career education may be considered a series of exploration activities in which the individual and the world of work are investigated.

The problem with many career education programs, as they are implemented, is a failure to individualize the exploration activities. Another concern is the adequacy of the assumption that exposure to various kinds of occupational information will develop actual job- and career-related behaviors. Although students may recognize that a certain behavior is required in a given situation, if the behavior is not in the repertoire, it must be learned. Vocational education programs meet the need for specific occupational preparation. However, career education programs are often hampered by overlooking the need to teach students specific career preparation behaviors. The BEST IDEA systematically guides the student, the teacher, and the counselor/instructor through the career development process. As a guide to assessment and intervention, it insures that the specific career behavioral needs of individual students are addressed.

Multimodal and Behavioral Assessment

The strength of multimodal career education is its scope as an assessment tool. However, the multimodal approach is not simply a framework for organizing case notes (see Wachowiak, 1978). Rather, the BEST IDEA includes assessment rules which direct individual career development evaluation in a stepwise, comprehensive fashion. The rules which generally guide assessment are included in Table 2.

Table 2

BEST IDEA Assessment Rules

Step in Hierarchy	Description
1.0	Determine which primary factors affect student's career development behaviors
1.1	Identify and define concretely Alpha Factors, if any exist in the individual's case
1.2	Identify and define concretely Developmental Level of the individual
1.3	Identify and define concretely Economic and Societal Factors that affect the individual
1.4	Identify and define concretely Interpersonal Relationships associated with the individual's career development
2.0	Determine which secondary factors affect student's career development behaviors
2.1	Identify and define concretely Behaviors related to the career development of the individual
2.2	Identify and define concretely Self-Talk related to career development Behaviors
2.3	Identify and define concretely Thoughts related to career development Behaviors and Self-Talk
2.4	Identify and define concretely Emotions related to career development Behaviors, Self-Talk, and Thought

The assessment rules provide the link between comprehensive evaluation of career status and systematic application of career development interventions. These rules were initially expressed in a structured interview protocol which was used in pilot studies with Odessa College career ladder nursing students during the Spring 1980 and Fall 1980 semesters. The structured interview was designed to secure data regarding behavioral strengths (skills) and needs (excesses and deficits). The counselor/instructor provided feedback to the student via two related forms, the Multimodal Career Development Profile, a narrative report, and the Multimodal Career Development Chart, a summary graphic report. In work with individual students, specific career development interventions were selected based upon identified needs. Multimodal Career Development Plans, tables which show the relationship between need and intervention by modality, were developed for some students. The organization of the plan corresponded to the format of the treatment plan presented by Lazarus (1976). The use of behaviorally-anchored structured interview protocols and integrated assessment-treatment profiles, charts, and plans places multimodal assessment in the mainstream of the developing field of behavioral assessment (see Ciminero, Calhoun, & Adams, 1977; Hersen & Bellack, 1976). The aforementioned protocol and forms are included in Appendix A.

Since the exploratory use of structured interviews and career development planning, the multimodal career assessment model has been expanded to include a number of resources, most being self-report or standardized instruments which were selected to conserve time in reaching larger numbers of nursing students. The major innovation was the construction of a Career Development Questionnaire (see Appendix B). In order to make the Career Development Questionnaire (CDQ) as rigorous a self-report as possible, certain behavioral assessment strategies were enlisted.

Assessment strategies can vary along a continuum from subjectivity to objectivity, from little precision to great precision. Although objective assessment is ideal, since it is closest to the behavioral data which constitute the problem, subjective reports which are meaningful to the client are also valuable. The CDQ uses client self-reports which are anchored to specific, measurable criteria, a major concern of behavioral assessment (Tasto, 1977). Also, the CDQ samples a number of motoric, cognitive, and physiological behaviors across a variety of situational contexts or stimuli; thus, generalizability of data secured by the instrument to the natural environments of the student is enhanced (Ciminero, 1977, pp. 22-23). The multimodal approach to assessment increases the face validity and construct validity of the CDQ (Ciminero, 1977, pp. 26-30), which otherwise could be used as a subjective career exploration for the student or "soft" measure for the less empirically-oriented counselor.

The objectivity of the CDQ is further developed by basing the scoring of the instrument upon explicit criteria selected by the multimodal career educator. Most of the decision rules which are used to score the CDQ are related to research-based findings in career choice, job acquisition and maintenance, and career advancement. Some of the items included in the Career Development Questionnaire (CDQ) Scoring Criteria are concretely tied to the expectations and assumptions of the multimodal career educator; therefore, they may vary depending upon the perspective of the professional reviewing the form. While this is obviously a subjective event, the specific rendering of these expectations, biases, and "clinical insights" insures acceptable objectivity according to the cognitive-behavioral approach in behavioral assessment (see Meichenbaum, 1976).

The most precise assessments involve direct observations of client behaviors in actual problem situations or settings. Audio or video tape recording can be used to secure samples of behavior and preserve data for more intensive analysis than is possible through contemporaneous coding of observations. Role playing and contrived situations may be used to facilitate interactions for the sake of assessment. However, role playing and behaving in the client's natural environment are not necessarily similar (e.g., Bellack, Hersen, & Turner, 1978). Therefore, role playing "probes" in assessment and in career development exercises must include content, sequencing (including discriminative stimuli), and contingency which parallel real-life situations. In the present project, role playing was used as a pre-treatment assessment for assertiveness training and as a component within the training itself.

Assessment of cognitive behaviors can be rigorous. Internal statements, incidences of arousals, images, and other covert behaviors can be monitored and analyzed in concrete terms. Behavioral recording can take into account a variety of related variables--e.g., real time, latency, and proportion of responses--depending upon the problem situation. In the project with Odessa College nursing students, cognitive behavioral assessment focused upon the self-talk which moves students toward or away from the profession of nursing (see Appendix C).

One potential criticism of the multimodal career assessment approach and the CDQ is the reliance upon self-report of motoric, cognitive, and physiological behaviors. While correlations between self-reports and observations of motoric (overt) behaviors have been low (Hersen, 1976), concordance can be achieved when concrete behavioral referents and evaluative anchors are used. Self-reports are excellent for assessing cognitive behaviors which are accessible to the person and and can be reported with precision. Physiological responses are measured by the "Emotion" and "Alpha Factor" modalities in multimodal career assessment. Although self-report is not the medium of choice for assessment of physiological responses, the technology for multi-channel physiological evaluation was not available during the project. According to Shelton and Levy (Note 7), the following guidelines should be followed to enhance validity and reliability in assessment.

Table 3

Characteristics of Valid and Reliable Assessment

---

1. The client should be aware that self-monitoring records will be checked for accuracy.
2. The client should be reinforced for accurate record keeping.
3. Data secured from observations of behavior by the counselor or another should be coded or classified according to concrete criteria selected before the observations occur.
4. Behaviors which are selected for observation should be valuable and meaningful with respect to the client's perception of the problem.
5. Assessment should involve frequent recording as soon after the target behavior occurs as possible.
6. Assessment strategies should minimize distractions.
7. Assessment strategies should minimize disruptions and intrusions of the client's daily life.
8. Assessment materials and technology should be easy to use and readily accessible.
9. When self-monitoring is required, the client should receive appropriate training regarding behavioral assessment.

The guidelines in Table 3 were followed in every stage of assessment in the present project. Students were rewarded with points for accurate completion of the CDQ, the Nursing Self-Talk Logs--the cognitive behavioral measures (see Appendix C)--and other assessment instruments. Targets for assessment were selected after reviews of relevant literature, consultation with experts on the subject of nursing career development, and pilot studies with nursing students. Evaluation was ongoing during the course, generally for the purpose of integrating assessment and instruction, specifically for determining the outcomes of a quasi-experimental trial of multimodal career education curriculum. Other instruments used to assess relevant change during the trial would be valuable in securing collateral data in many applications of multimodal career education assessment. The measures and rationales for their inclusion in the study are included in Appendix D.

Additional characteristics of assessment in the present project supported validity and reliability. A strategy was selected to secure career development ratings from significant others in the lives of students (see Appendix E). By systematically collecting data from someone in addition to the client and the counselor, the social validity of the assessment is increased (Kazdin, 1977). Finally, all assessment strategies were timely, unobtrusive, and accessible. Data gathered during the initial phase of assessment were transformed to strength and need codes (see Appendix B) in order to identify assets and to design career development interventions.

Multimodal Career Education and Career Development

Multimodal career assessment delineates primary and secondary factors which present obstacles to career development. The primary factors--Interpersonal Relations, Developmental Level, Economic and Societal Factors, and Alpha Factors--receive initial attention because these modalities influence secondary factors for many individuals. The secondary factors include Behavior, Emotion, Self-Talk, and Thought, modalities which vary among and within individuals over time and place. Therefore, multimodal career development interventions emphasize primary factors for groups of students and secondary factors for individuals.

Interventions in multimodal career education include a variety of individual and group activities. The activities may be classified generally as psychological education (Skovholt, 1977), social skills training (Bellack & Hersen, 1979), behavioral counseling (e.g., Krumboltz & Thoresen, 1969; Shelton & Ackerman, 1976), and career exploration (Dudley & Tiedeman, 1977; Mitchell, Jones, & Krumboltz, 1979; Walz, Smith, & Benjamin, 1974). Although some activities include the entire class, many interventions will be offered to individuals or small, homogeneous groups of students. In matching interventions with individual career development needs, the factors should be considered in the same order as that cited in the assessment rules. That is, the design of career development plans for the entire class and the individual should consider the Need Codes, individually and collectively, in the order of the factors presented in the assessment rules. For example, in the multimodal career education program, all individuals whose first-ranked primary need factor (see Appendix B for computation) in the Need Code is "Alpha Factor" will receive initial attention in the construction of interventions.

Interventions designed to address primary factors require timely implementation and significant involvement of resource persons. When alpha factors are identified as impediments for career development, the instructor should immediately refer the student to professional helpers. Alpha factors such as alcoholism or substance abuse--both encountered among nursing students in this project--must be treated by a physician, counselor, or therapist before attention can be directed at other modalities. Similarly, individual treatment for significant illness and psychopathology, insomnia, and stress-related lifestyle disorders (e.g., excessive smoking) should be initiated immediately.

Individual needs associated with Developmental Level must also receive immediate attention. Students with serious developmental problems, such as learning disabilities or study skills deficits, need not be referred exclusively to remedial programs. Nursing students with Developmental Level needs can participate in multimodal career education by adapting individual and group activities. Classroom activities must be accessible to handicapped students. Developmental Level interventions may include modifications of instructional resource materials to deal with cognitive organization and age-appropriate behavior. For example, the Cognitive Mapping Instrument (Nunney & Hill, 1972), Loevinger's (1976) Sentence Completion Blank, or the Conceptual Systems Profile (Southern, Caris, & Kyle, Note 9) can be used during the assessment phase to provide direction for materials adaptation according to cognitive style. Some students will require predominantly visual activities, while others will experience good results with activities that stress auditory or aesthetic media. Some students will require concrete activities with immediate external reinforcement; others will benefit from complex, exploratory activities with self-reinforcement. The Nelson-Denny Reading Test (Brown, Nelson, & Denny, 1973) and other academic achievement tests may be used to identify specific needs for initial placements. Developmental Level activities in the present project included training in study skills, instruction in test-taking and memorization techniques, and discussion of creative thinking.

Interventions which are matched with Economic and Societal Factors are less concerned with altering the stimulus properties of other career development activities--such as modifying instructional resource materials--and more concerned with providing psychological education and career information about the world of work. Societal influences upon career choice, effects of various environmental motivators (money, prestige, etc.), interactions of labor market demands and supplies of workers, and related socioeconomic factors (e.g., ethnic and cultural pride) can be considered in large presentations, small discussion groups, or individual explorations. In the present project, nursing students were provided multimodal career education activities related to sex bias and sex role stereotyping--classified as a Self-Talk activity when the cognitive approach is emphasized--and to current occupational information.

Interventions with Interpersonal Relations are among the activities most easily managed by the instructor. These interventions concentrate upon structured group experiences (Pfeiffer & Jones, 1980), social skills training (Bellack & Hersen, 1979; McFall & Twentyman, 1973), and assertiveness training (Alberti, 1977; Lange & Jakubowski, 1976). The goals of activities that involve organized groups of students are increasing collaborative conflict resolution, human relations and communication skills, and problem-solving behaviors. Many of the activities will address individual needs to overcome anxiety and self-preoccupation, fear of social situations, lack of assertiveness, and performance deficits (e.g., Lange & Jakubowski, 1976). Social skills training and behavioral counseling activities will focus upon building appropriate interpersonal behaviors for a variety of settings and situations including speaking over the telephone, asking questions in class, and addressing an employer regarding a grievance. The "Personal Development" class included assertiveness training designed especially for nursing students (see Herman, 1977). The activity sheets for the initial assertiveness session in the project are organized herein as Appendix F. An explanation of the method for associating Need Codes with activities is included in the appendix.

Secondary interventions are very individualized. When sufficient work with primary factors is underway, intervention strategies for modifying specific career development behaviors are indicated. The priority for implementing interventions is, in decreasing order, Behavior, Self-Talk, Thought, Emotion. Due to the complexities associated with work on emotions, the expertise of counselors or therapists may be needed to remove career development barriers. In multimodal career education, the majority of student and program resources should be directed at the self-modification of concrete overt and covert behaviors. Presentation of the multimodal approach (Lazarus, 1976), operant conditioning and behavioral self-management (see Watson & Tharp, 1977), and social learning theory (Bandura, 1969) will enable students to master requisite skills for changing career development behaviors.

Interventions with Self-Talk can be as rigorous as activities concerned with modifying overt behaviors. Self-Talk interventions, which are cognitive-behavioral in focus, include rational restructuring (see Goldfried & Davison, 1976), self-instruction training (Meichenbaum, 1977), problem-solving training (D'Zurilla & Goldfried, 1971), and stress inoculation training (Meichenbaum, 1973). Each of the aforementioned techniques are concerned with the modification of internal statements--also called "attitudes," "evaluative beliefs," and "values"--that suppress or inhibit appropriate, goal-directed career development activities. Modification of internal statements or cognitive behaviors involves engaging in realistic, positive self-talk rather than in debilitating negative self statements, "put-downs," and irrational "oughts" and "shoulds." Cognitive contingencies can be manipulated in many of the same ways as overt behaviors (Mahoney, 1974); therefore, Self-Talk interventions naturally follow and support Behavior interventions. Cognitive behavioral interventions, especially self-management (Stuart, 1977; Watson & Tharp, 1977) and problem-solving (D'Zurilla & Goldfried, 1971) can be cued by written materials or guides in other media. Individual and small group formats can be used to offer the earlier-mentioned specific techniques. Individualized assessment through the completion of inventories and cognitive behavioral probes is essential to effective interventions with Self-Talk problems.

If the images and daydreams that constitute the Thought factor have been specified clearly, then effective interventions are possible. Often, thoughts which cause career development problems are related to unrealistic self-talk and inappropriate behaviors. Therefore, interventions that focus upon images, fantasies, or internal visual rehearsals should be components of "treatment packages" (Kazdin & Wilson, 1977). The frequencies of occurrence of thoughts can be modified by self-reinforcement or punishment. Visuomotor behavioral rehearsal (Suinn, 1975) and thought stopping (see Mahoney, 1974) can be used to reprogram these covert behaviors. Interventions with this factor are primarily behavioral counseling endeavors; therefore, relevant resource persons should be consulted.

Interventions with Emotion usually will not be student- or instructor-managed. Skilled mental health practitioners should conduct the treatment procedures required to ameliorate emotional behaviors and physiological symptoms. Systematic desensitization (Wolpe, 1973) and anxiety management training (Suinn, 1977) represent two potentially useful techniques. Relaxation training procedures (see Lazarus, 1971) can be learned by instructors and students. Thus, relaxation as prophylaxis can be conducted in the classroom. Similarly, guided imagery (Crabbs, 1979; Kelly, 1974), a technique concerned with the thought factors, may be undertaken as a preventative measure.

While interventions are selected to meet current individual career development needs, preventive strategies can be offered to groups of students without significant attention to assessment. Many career education programs offer a variety of occupational information and personal skill building exercises. Preventive exercises include values clarification (e.g., Simon, Howe, & Kirschenbaum, 1972), life coping skills training (Adkins, 1974) and other psychological education efforts (see Alschuler, Ivey, & Hatcher, 1977). Preventive strategies tend to exercise the factors which receive little attention in interventions.

Multimodal career education for nursing students was implemented on an exploratory basis in the Spring 1980 semester, as a pilot study (to evaluate constructs and field-test activities) in the Fall 1980 semester, and as a quasi-experimental trial of a model curriculum in the Spring 1981 semester. While the effects of multimodal career education for career ladder nursing students are not established as yet, some initial observations associated with formative evaluation are promising (see Appendix G). The present project, from initial development of strategies and resources to trial of model curriculum, has been guided by a developmental research and utilization approach to instructional design. The developmental research and utilization model (see Appendix H) was adapted from work by Thomas (Note 8) and Guba and Clark (1965). This report represents an initial "Diffusion" of information effort. Additional dissemination of outcome data is planned. Please contact the senior author for details regarding the trial of the curriculum and the production of a multimodal career education for nursing students resource manual.

Summary

Retaining students in training programs and nurses in the workforce is a current critical problem which is related to inadequate career development among nursing students. Multimodal career education, an adaptation of Lazarus' (1976) broad-spectrum behavior therapy (BASIC ID), was presented as a tool for promoting career development. Multimodal career education consists of systematic applications of integrated assessment and intervention.

Assessment strategies measure four primary, or environmental factors, and four secondary, or personal, modalities which affect career choice, job acquisition and maintenance, and career advancement. Multimodal assessment was considered in light of recent advances in the field of behavioral assessment. Multimodal career development interventions include group activities and individual exercises linked to students needs identified through the assessment process. The multimodal career education approach has been applied during the last year in applied psychology ("Personal Development") courses for career ladder nursing students at Odessa College. In accord with a developmental research and utilization model, information about multimodal career education is being disseminated at this time. Outcome data and a resource manual will be available at the close of this project, which was funded by the Texas Education Agency.

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Appendices

Appendices

The following appendices were initially attached to the convention paper "Multimodal Career Education for Nursing Students." Many of them are cited in the texts of the Final Report and Instructional Resource Guide, as well. Therefore, the appendices should be retained with the entire volume for future reference. There are unique, sequential page numbers for the entire set. These numbers are located at the bottom of each page, including the cover pages. Within a given appendix, there may be page numbers for a test, resource or activity.

Appendix A

Multimodal Career Assessment: Structured Interview Protocol and Other Resources

MULTIMODAL CAREER ASSESSMENT: STRUCTURED INTERVIEW PROTOCOL

A. Determine which primary factors affect individual's career development behaviors.

1. ALPHA FACTORS

What, if any, were the physiological or physical setting factors that influenced your career choice?

What, if any, are the physiological or physical setting factors that influence your career development?

(Stimulus words: lack of sleep, chronic illness, drugs, alcohol)

2. DEVELOPMENTAL LEVEL

What were the developmental factors that influenced your career choice? Specifically, how did your parents and early schooling influence your career choice?

What are the age-related and special learning needs that influence your career development?

Do your relationships with parents or other relatives contribute to your career strengths or weaknesses?

(Stimulus words: expectations of family, early guidance experiences, cognitive styles or learning preferences, initial work experiences, aptitudes and accomplishments, favorite and disliked subjects, age at graduation)

3. ECONOMIC AND SOCIETAL FACTORS

What were the economic or societal factors which influenced your career choice?

What are the economic and social influences in your ongoing career development?

(Stimulus words: family income, present income, ethnic background, religion, disadvantage or affluence, clubs and organizations)

4. INTERPERSONAL RELATIONSHIPS

What were the expectations and behaviors of your friends and associates which influenced your career choice?

What were/are the expectations and behaviors of your spouse or lover which influenced/influence your career development?

(Stimulus words: social skills, peer groups, support, empathy, leadership, warmth)

B. Determine which secondary factors affect individual's career development behaviors.

1. BEHAVIORS
What were/are the behavior patterns that influenced/influence your job choice, acquisition, maintenance, and advancements?

(Stimulus words: interviewing skills, communication, approach or avoidance job-seeking skills, working behavior, physical movement, study skills)

2. SELF-TALK
What self-talk guided your career development by creating opportunities or impediments?

What self-talk presents/promotes career satisfaction or change?

(Stimulus words: evaluation, self-instructions, labels, concepts, stereotypes, generalizations, absolutism)

3. THOUGHTS
What were the images, thoughts, and daydreams which influenced your career choice?

What are the images, thoughts, and daydreams which influence your career development?

(Stimulus words: covert rehearsal, fantasies, dreams, imagination)

4. EMOTIONS
What states of emotional arousal influenced/influence your career choice and satisfaction?

(Stimulus words: tension, anxiety, pleasure, fear, anger)

C. Determine interactions among secondary factors.

How are emotions, thoughts, and/or self-talk related to career development behaviors? (Counseling task question)

What are the excesses and deficits for each modality? (Counseling task question)

D. Determine influences of primary factors upon secondary factors.

What setting factors and/or referent conditions arising from primary factors alter the stimulus conditions for primary factors? (Counseling task question)

MULTIMODAL CAREER ASSESSMENT CHART

	STRENGTHS	EXCESSES/DEFICITS
BEHAVIOR		
EMOTION		
SELF-TALK		
THOUGHT		
INTERPERSONAL RELATIONS		
DEVELOPMENTAL LEVEL		
ECONOMIC AND SOCIAL FACTORS		
ALPHA FACTORS		

NAME______________________________

CODE______________________________

MULTIMODAL CAREER DEVELOPMENT PROFILE

Based upon your responses to the Career Development Questionnaire, the following factors contribute to your occupational choice and advancement. Your strengths, as well as potentially disruptive excesses and deficits, are discussed below for each factor and summarized on the attached chart.

BEHAVIOR: Observable actions or response including interviewing skills, work practices, study skills, job-seeking activities, and physical efforts

Your Strengths:

Excesses/Deficits:

EMOTION Affects, physiological arousal states, feelings, and sensations

Strengths:

Excesses/Deficits:

SELF-TALK Internal speech and self-instruction

Strengths:

Excesses/Deficits:

THOUGHT Fantasies, dreams, and images

Strengths:

Excesses/Deficits:

INTERPERSONAL RELATIONS Interactions with friends and associates

Strengths:

Excesses/Deficits:

DEVELOPMENTAL LEVEL

Age-appropriate and special learning needs, family influences, and sequential situations

Strengths:

Excesses/Deficits:

ECONOMIC AND SOCIETAL FACTORS

Ethnic, cultural and financial influence

Strengths:

Excesses/Deficits:

ALPHA FACTOR

Physiological setting factors or major influences upon other modalities

Strengths:

Excesses/Deficits:

Appendix B

Career Development Questionnaire and Scoring Resources

CAREER DEVELOPMENT QUESTIONNAIRE (CDQ)

In order to effectively work with you in your career planning, the following information is necessary. Your responses will be confidential, available only to you or your counselor. Please answer all questions in an honest manner with as much detail as space permits.

I. BACKGROUND DATA

A. Name____________________

B. Address____________________

____

C. Telephone Number____________________

D. Age__________ Date of Birth__________ Sex__________

E. Present Occupation____________________

F. Parents' Occupations--Mother____________________

Father____________________

G. If married, Spouse's Occupation____________________

H. Present Individual/Family Annual Income (to nearest $500)__________ Family size__________

I. Annual Income of Parents during your Childhood (to nearest $500)__________ Family size__________

J. Interests, Hobbies, and Social Activities____________________

____

____

K. Last Grade/Year of School Completed____________________

L. Major Subjects Studied____________________

____

M. Kinds of Jobs Held in Past____________________

____

N. Satisfactions and Dissatisfactions with Career Development to Date__________

____

____

____

____

O. Personal Goals and Values ______________________________

____

____

P. If married, Spouse's Goals and Values ______________________________

____

____

Q. Expectations Regarding Career Development in Next Ten Years ______________

____

____

____

R. Health During Childhood ______________________________

____

____

S. Present Health ______________________________

____

____

T. Height ______________ Weight ______________

U. On-the-Job Accidents/Illnesses ______________________________

____

____

V. Medication/Drug Use (including alcohol, nicotine, caffeine, etc.) __________

____

____

____

W. Estimated Average Number of Hours Spent per week:

Work/School ______________________________

Sleep ______________________________

Pleasant/Relaxing Events ______________________________

X. Major Personal Strengths ____

____

____

Y. Major Personal Weaknesses ____

____

____

Z. Persons With Whom You Have Spoken About Career Concerns __________________

____

____

____

II. Behavioral Data

A. Please describe yourself in concrete, behavioral terms, taking into account specific work or occupational situations and your observable responses to them. ____

____

____

____

____

____

B. Describe your response to stress or the demands of life. Reflect upon your behavior pattern including speed and impatience, hard-driving competitiveness, involvement in sports or relaxing activities, etc. ____________________________

____

____

____

____

C. Describe your job acquisition and maintenance behaviors. Consider interviewing and job seeking skills, study and work behaviors, and communication styles.

____

____

____

____

____

D. What would you need to do in order to achieve your career goals?__________

____

____

III. Cognitive Data

A. How do you feel about your present job or point in career development?______

____

____

____

B. What emotions are evoked by your preferred occupations?__________________

____

____

C. While at work or school, what sensations or physical effects do you experience?

____

____

____

D. To what degree does "feeling good" physically influence your career choice?

____

____

____

E. What kinds of images, thoughts, and daydreams have you had about your chosen occupation? ____________________________

____

____

F. Whom would you most like to imitate or model in your career? What is the person's career?______________________________

____

F. How do you solve problems? ________________________________

____

G. What are your academic strengths and weaknesses? ____________

____

____

H. What are your technical or job-related strengths and weaknesses? ______

____

____

I. How do you prefer to learn or to receive instructions? __________

____

____

V. Related Data

A. What is your ethnic background? How has your background affected your career development? ______________________________

____

____

B. Along the scale from poor to wealthy, how would you describe yourself? How has this affected your career development? __________________

____

____

C. Have you experienced any major physical or psychological problems which affected your career development? ______________________

____

____

D. What other social, economic, or cultural factors affect your exploration of career opportunities? ______________________________

____

____

____

CAREER DEVELOPMENT QUESTIONNAIRE (CDQ) SCORING CRITERIA

INSTRUCTIONS: For each item, use the decision rule(s) to score the CDQ. Insert the + or - scores on the CDQ Scoring Summary.

I. Background Data

D. If 25-45 then "+." Less than 20 or more than 65 then "-."

E. If congruent with IO and/or IQ then score "+." If professional, technical, or skilled trades then "+." If unskilled occupation, then "-."

F. If occupation of mother or father is lower level than occupational choice in IO and/or IQ then score "+." If parent's level is higher, then "-."

G. If congruent with IO and/or IQ then score "+."

H. If over $10,000 per family member, then "+."

I. If over $10,000 per family member, then "+."

J. If behaviors involved are congruent with occupational choice in IO and/or IQ, then score "+." If more than five listed then "+." If none listed then "-."

K. If college graduate (16+), then score "+." Failure to graduate from secondary school, then "-."

L. If none are listed, then score "-."

M. If jobs are congruent with occupational choice in IO and/or IQ, then "+." If no jobs are listed then "-."

N. If satisfactions express realistic, positive self-talk then score "+" under Self-Talk. If no satisfactions are listed then "-." If dissatisfactions reflect self-imposed restrictions,then "-" under Self-Talk. If positive sensations are noted, then score "+" under Emotion. If negative sensations are noted, then score "-" under Emotion.

O. If occupational choice or career development is clearly expressed, then score "+." If career is not mentioned, then score "-." If goals or values conflict with career statement in IQ then "-."

P. If congruent with IO and/or IQ, then score "+."

Q. If occupational choice or career development is clearly expressed and represents logical sequence, then score "+." If expectations are unrealistic, given age, training, and related background information, then score "-."

R. If excellent health specified, then score "+."
If poor health specified, then score "-."

S. If excellent health specified, then score "+."
If poor health specified, then score "-."

T. If height, weight, or height/weight is excessive or deficient for age and sex, then "-."

U. If recent occurrence or a series of events, then "-."

V. If none are listed, then score "+." If more than two are listed, then "-."

W. If work/school hours more than 50, then score "-."
If sleep hours less than 30 or more than 70, then score "-."
If pleasant/relaxing events less than 7, then score "-." If pleasant/relaxing events more than 14, then score "+."

X. If more than three strengths are listed, then "+." If no strengths are listed, then "-."

Y. If more weaknesses than strengths are listed then "-."

Z. If no person is listed, then score "-."

II. Behavioral Data

A. If specific behaviors are described, then score "+" under Behavior. If negative self-talk is included, then score "-" under Self-Talk.

B. If Type A behaviors are listed, then score "-" under Behavior. If negative feelings or sensations are specified, then score "-" under Emotion. If physical symptoms or health problems are noted, then score "-" under Alpha Factors.

C. If specific skills are included, then score "+." If skill deficits or excesses are noted, then score "-."

D. If specific realistic behaviors are listed, then score "+" under Behavior. If negative self-talk is included, then score "-" under Self-Talk. If events are vividly described, then score "+" under Thought.

III. Cognitive Data

A. If positive feelings or sensations are listed then score "+" under Emotion. If negative feelings or sensations are noted, then score "-" under Emotion. If negative self-talk is included, then score "-" under Self-Talk.

B. If positive feelings or sensations are listed, then score "+." If negative feelings or sensations are listed, then score "-."

C. If positive feelings or sensations are listed, then score "+." If negative feelings or sensations are listed, then score "-."

D. If positive sensations are keynoted, then score "+." If there is no or a negative response, then score "-."

E. If positive thoughts are listed, then "+." If negative thoughts are listed, then "-."

F. If the person who is identified has an occupation similar to the choice listed in IO and/or IQ, then score "+." If occupation is dissimilar, score "-."

G. If positive self-talk is included then score "+." If negative self-talk or self-imposed restrictions are noted, then score "-."

H. If successful talk is used, then score "+" under Self-Talk. If fatalistic talk is used, then score "-" under Self-Talk. If successful images are noted, then score "+" under Thought. If restrictive images are noted, score "-" under Thought.

I. If personal power or an internal locus of control is expressed, then score "+." If an external locus of control or lack of personal power is included, then score "-."

IV. Interpersonal Data

A. If congruent with occupational choice in IO and/or IQ then score "+." If incongruent, then "-."

B. If response is assertive, then score "+" under Interpersonal Relations. If specific behaviors are cited, then score "+" under Behavior. If enabling self-talk is used,then score "+" under Self-Talk. If negative or non-assertive responses are offered, then score "-" under the appropriate modality or factor.

C. If congruent with occupational choice in IO and/or IQ then score "+." If incongruent, then "-."

D. If congruent with occupational choice in IO and/or IQ then score "+." If incongruent, then "-."

E. If congruent with occupational choice in IO and/or IQ then score "+."

F. If response indicates involvement of others, then score "+" under Interpersonal Relations. If imaginal solutions are tried, then score "+" under Thought.

G. If specific skills are listed, then score "+" under Behavior. If more strengths than weaknesses are listed, then score "+" under Developmental Level. If more weaknesses are listed, then "-."

H. If specific skills are listed, then score "+" under Behavior. If more strengths than weaknesses are listed. then score "+" under Developmental Level. If more weaknesses are listed, then "-."

I. If more than two media are included, then score "+" under Developmental Level. If self-talk is emphasized, then score "+" under Self-Talk. If imagery is emphasized, then score "+" under Thought.

V. Related Data

A. If response indicates background has been supportive, then score "+." If response indicates restrictive background, then score "-."

B. If response indicates background has been supportive, then score "+." If response indicates restrictive background, then score "-."

C. If major problems are noted, then score "-." If none are listed, then "+."

D. If positive influences are noted, then score "+." If negative influences are noted, then score "-."

CAREER DEVELOPMENT QUESTIONNAIRE (CDQ) SCORING SUMMARY

INSTRUCTIONS: Insert the + or - in the blank provided for each item discussed in the CDQ SCORING CRITERIA. Sum the + and - scores and write totals in blanks. Provide brief descriptions of scores under NOTE heading.

SECTION I

			MODALITY/FACTOR							
ITEM	B	E	S	T	I	D	E	A	RESPONSE	NOTES
D						___			+, -	___
E							___		+, -	___
F						___			+, -	___
G					___				+	___
H							___		+	___
I							___		+	___
J	___								+, -	___
K						___			+, -	___
L						___			-	___
M						___			+, -	___
N		___	___						E±, S±	___
O			___						+, -	___
P					___				+	___
Q			___						+, -	___
R						___			+, -	___
S								___	+, -	___
T								___	+, -	___
U								___	-	___
V								___	+, -	___
W								___	+, -	___
X			___						+ -	___
Y			___						-	___
Z					___				-	___

SECTION II

			MODALITY/FACTOR							
ITEM	B	E	S	T	I	D	E	A	RESPONSE	NOTES
A	___		___						B+, S-	___
B	___	___						___	B-, E-, A-	___
C	___								+, -	___
D	___		___	___					B+, S-, T+	___

SECTION III

A		___	___						E±, S-	___
B		___							+, -	___
C		___							+, -	___
D		___							+, -	___

336

SECTION III (cont'd)

ITEM	B	E	S	T	I	D	E	A	RESPONSE	NOTES
				MODALITY/FACTOR						
E				___					+, -	___
F				___					+, -	___
G			___						+, -	___
H			___	___					S±, T±	___
I			___						+, -	___

SECTION IV

ITEM	B	E	S	T	I	D	E	A	RESPONSE	NOTES
A					___				+, -	___
B	___		___		___				B±, S±, I±	___
C					___				+, -	___
D					___				+, -	___
E	___								+	___
F				___	___				T+, I+	___
G	___					___			B+, D±	___
H	___					___			B+, D±	___
I			___	___		___			S+, T+, D+	___

SECTION V

ITEM	B	E	S	T	I	D	E	A	RESPONSE	NOTES
				MODALITY/FACTOR						
A							___		+, -	___
B							___		+, -	___
C								___	+, -	___
D							___		+, -	___

SUMMARY

	B	E	S	T	I	D	E	A
+	___	___	___	___	___	___	___	___
-	___	___	___	___	___	___	___	___

(Enter these scores on the CDQ SCORE CONVERSION.)

CAREER DEVELOPMENT QUESTIONNAIRE (CDQ) SCORE CONVERSION

INSTRUCTIONS: Using the table below, convert the raw scores, which are found in the CDQ SCORING SUMMARY, to comparison scores for the purpose of ranking the factors. Follow the steps to obtain the final Multimodal Career Development Codes.

STEP 1

Transfer the raw scores from the CDQ Scoring Summary to the blanks below.

B E S T I D E A　　　　B E S T I D E A

Raw Score (+) _ _ _ _ _ _ _ _　　Raw Score (-) _ _ _ _ _ _ _ _

Converted Score (+) _ _ _ _ _ _ _ _　　Converted Score (-) _ _ _ _ _ _ _ _

Referring to the SCORE CONVERSION TABLE, insert the Converted Scores which correspond to the Raw Scores.

CAREER DEVELOPMENT QUESTIONNAIRE (CDQ) SCORE CONVERSION TABLE

Modality/Factor

Raw Score	B		E		S		T		I		D		E		A	
	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	12	25	20	16	11	8	16	33	14	20	12	12	16	25	25	14
2	25	50	40	33	22	17	33	67	29	40	25	25	33	50	50	29
3	37	75	60	50	33	25	50	100	43	60	37	37	50	75	75	43
4	50	100	80	67	44	33	67		57	80	50	50	67	100	100	57
5	63		100	83	56	42	83		71	100	63	63	83			71
6	75			100	67	50	100		86		75	75	100			86
7	88				78	58			100		88	88				100
8	100				89	67					100	100				
9					100	75										
10						83										
11						92										
12						100										

STEP 2

Subtract the Converted Score (-) from the Converted Score (+) to obtain the Comparison Scores.

	B	E	S	T	I	D	E	A
Converted Score (+)								
Converted Score (-)								
Comparison Score								

STEP 3

Rank the primary factors and secondary modalities separately. Assign the first rank to the highest comparison score in each grouping and rank the others in descending order.

	Primary				Secondary			
	I	D	E	A	B	E	S	T
Comparison Score								
Strength Rank								

STEP 4

Using the strength ranks and the numeric labels obtained from the BEST IDEA Assessment Rules (See Table 2, page), find the major and minor Multimodal Career Development Strength Codes. The major code is the first-ranked primary factor coupled with the first-ranked secondary modality. The minor codes are the first-ranked primary factor coupled with the second-ranked secondary modality and the second-ranked primary factor coupled with both the first- and second-ranked secondary modalities. The following format should be used.

	Primary				Secondary			
	I	D	E	A	B	E	S	T
Strength Rank								
Numeric Label	4	2	3	1	1	4	2	3

Major Strength Code ________ Minor Strength Codes ________, ________, ________

STEP 5

Review the comparison scores and re-rank them to find the Need Codes. Assign the first rank to the lowest comparison score in each grouping, primary or secondary, and then rank the others. Using the numeric labels and the format for generating codes which was presented in Step 4, identify the Major Need Code and three Minor Need Codes.

		Primary				Secondary		
	I	D	E	A	B	E	S	T
Comparison Score	____	____	____	____	____	____	____	____
Need Rank	____	____	____	____	____	____	____	____
Numeric Label	____	____	____	____	____	____	____	____

Major Need Code ______ Minor Need Codes ______, ______, ______

Appendix C

"Daily Log" (Nursing Self-Talk Log) and Instructions

DAILY LOG

NAME____DATE___________________

Remember to make a mark in the correct box to represent each significant thought within fifteen-minute blocks between 12 noon and 6 P.M. Thank you.

Self-Talk Toward Nursing
Self-Talk Away from Nursing

CRITERIA FOR COMPLETING SELF-TALK LOGS

Make one mark in the appropriate box for each episode of self-talk that represents a significant thought within a fifteen-minute block of time. Do not record minor or passing thoughts. Keep track of the self-talk between the hours of noon and 6 p.m. Although it would be best to record each thought as soon after it occurs as possible, it is not essential to carry the form at all times. You can jot down marks on any paper and then transfer them later to the Daily Log. Do not let the form intrude upon your life. However, your accuracy and diligence is appreciated.

Use the following criteria or rules in deciding whether or not an instance of self-talk is significant, insignificant, "Toward Nursing," or "Away from Nursing." Self-talk is significant if it is central in content or duration to a fifteen-minute block of time. If the self-talk does not relate to nursing or if it is only a passing thought, then it should be considered insignificant in this project.

Self-talk that is directed Toward Nursing includes positive statements and internalized speech which moves you toward the nursing profession. Examples of positive self-talk are included below.

> "I want to become a nurse."
> "Nursing is a worthwhile profession."
> "Nursing was the right choice for me."
> "I will complete the nursing program."
> "There are lots of opportunities in nursing."
> "Nursing is a great way to ___________________."
> "It will be great when I graduate."

Self-talk that moves you Away from Nursing includes negative statements which make you want to discontinue studies or not become a nurse.

> "I can't become a nurse."
> "Nursing is not as important a profession as medicine."
> "Nursing is not the right choice for me."
> "I will leave the nursing program."
> "There are few opportunities in nursing."
> "I don't like ___________________ about nursing."
> "It probably won't be any better when I graduate."

"I can't become a nurse."
"Nursing is not as important a profession as medicine."
"Nursing is not the right choice for me."
"I will leave the nursing program."
"There are few opportunities in nursing."
"I don't like ____________________ about nursing."
"It probably won't be any better when I graduate."

APPENDIX D

Outcome Measures in Study

Outcome Measures in Study[1]

Pre-Treatment Test	Variable	Post-Treatment Test
Vocational Preference Inventory	Self-Control; Masculinity; Status; Infrequency; Acquiescence and Holland Scales	Vocational Preference Inventory
Rathus Assertiveness Scale	Assertiveness	Rathus Assertiveness Scale
Bem Sex Role Inventory	Masculinity; Androgeny	Bem Sex Role Inventory
Attitudes Toward Women	Role Perceptions; Sexism/Bias	Attitudes Toward Women
Work and Family Orientation Scale	Commitment to Career as measured by Work Orientation, Mastery, Competitiveness, and Personal Unconcern	Work and Family Orientation Scale
Sixteen P-F	Emotional Stability (C); Assertion (E); Seriousness (F); Conscientiousness (G); Self-Reliance (I); Shrewdness (N); Self-Assurance (O); Radicalism (Q_1); Self-Sufficiency (Q_2); Self-Sentiment (Q_3); Composure (Q_4)	Sixteen P-F
Nursing Self-Talk Log	Cognitive Behaviors Moving Toward or Away from Nursing	Nursing Self-Talk Log (Inclu. repeated measures)
NA[2]	Mastery of Activity Content	Objective Examination
NA[2]	Completion of Assignments	Course Assignment
NA[2]	Social Validation of Process	Course Evaluation

---

1. Quasi-experiment trial of curriculum conducted in Spring 1981 Semester
2. Not applicable

Appendix E

Multimodal Career Development Chart: Social Validation by Other

NAME ______________________

CODE ______________________

MULTIMODAL CAREER DEVELOPMENT CHART

	STRENGTHS	EXCESSES/DEFICITS
BEHAVIOR		
EMOTION		
SELF-TALK		
THOUGHT		
INTERPERSONAL RELATIONS		
DEVELOPMENTAL LEVEL		
ECONOMIC AND SOCIETAL FACTORS		
ALPHA FACTORS		

MULTIMODAL CAREER DEVELOPMENT CHART PREPARATION

Using the following definitions and examples, write brief, specific descriptions of the career strengths and excesses/deficits (i.e., problems) of ____________________ ______________________________ on the attached chart. Try to use as little interpretation as possible. Rather, jot down the concrete events and actions about which you have first-hand information. Preferably, you should include actual observations and details that ____ shared with you. Consider the definitions and examples below.

MODALITY/FACTOR	DEFINITION	EXAMPLES
Alpha Factors	Physiological (or physical) influences upon all of the other modalities	Drug use, excessive eating or drinking, deficient sleep, illness (Excesses/Deficits); Excellent health, well-balanced diet, lean musculature (Strengths)
Developmental Level	Age-appropriate and special learning needs, family influences, and sequential behaviors	Dropping out of school, parental pressures or unrealistic expectations, weaknesses in certain courses or studies, handicaps and childhood problems (Excesses/Deficits); Learning preferences, parental support for occupation, intelligence, large size or great strength (Strengths)
Economic and Societal Factors	Social and cultural influences	Discrimination or prejudice, insufficient income, restrictive customs (Excesses/Deficits); Wealth, motivational background, supportive ethnic heritage (Strengths)
Interpersonal Relations	Interactions and relationships with friends and associates	Peer devaluation of career goals, incompatible occupations of spouse , subservient or "lose-win" relationship with boss (Excesses/Deficits); Close friendship with achievement-oriented associate, assertiveness, complementary careers of spouse (Strengths)
Behavior	Observable actions or responses	Impulsive behavior or poor self-control, tics or unusual gestures and body movements, speech dysfluency, excessive talking

MODALITY/FACTOR	DEFINITION	EXAMPLES
		(Excesses/Deficits); interview skills, eye-hand coordination, vocational aptitudes (Strengths)
Self-Talk	Internal speech or self-instruction	Self-imposed restrictions on career choice, depressed talk, angry talk, nonassertive talk (Excesses/Deficits); Positive or successful talk, ambition, realistic aspiration (Strengths)
Thought	Images, daydreams, or fantasies	Lack of imagery or visualization skill, unrealistic fantasies, inadequate role model (Excesses/Deficits); Well-defined imagery, task-directed thoughts, successful role model (Strengths)
Emotion	Feelings, sensations or arousal states	Excessive Sympathetic Nervous System activation or stress, anxiety, physical symptoms such as heartburn, depression (Excesses/Deficits); High energy, relaxation, joy (Strengths)

MULTIMODAL CAREER DEVELOPMENT CHART SCORING

The Multimodal Career Development Chart may be reviewed quickly to obtain Strength and Need codes. After charts have been prepared by the student and/or significant others, sum the entries in each cell of the chart. The modality/factor which has the highest sum is the first-ranked in each grouping, primary or secondary, strength or need. Obtain the Strength and Need Codes by separately ranking the primary and secondary factors on the "Strengths" and "Excesses/Deficits" sections of the chart, respectively. Then, combine the ranked factors/ modalities as described in Steps 4 and 5, Career Development Questionnaire Score Conversion to obtain the codes.

Appendix F

Exemplary Multimodal Career Development Activity

INTRODUCTION TO ASSERTION

I. SELECTION CRITERIA

A. Suggested Prerequisite Activity/Exercise	E/S-1
B. Preferred Application	4.2
C. Alternate Application	4.1, 4.3
D. Related Application	NA
E. Suggested Follow-up Activity/Exercise	S-1

II. ADMINISTRATIVE CRITERIA

A. Number of Participants	Large Group
B. Estimate of Time	
1. Instructor preparation	60 minutes
2. Student involvement	50 minutes
C. Location of Activity	Classroom
D. List of Required Resources	
1. Instructor Information Sheet	v
2. Student Information Sheet	vii
3. Student Handout	viii
4. Assignment Sheet	ix
5. Supplies/Equipment List	NA

6. Pre-treatment Assessment
    - a. Rathus Assertiveness Scale (Rathus, S. A 30-item schedule for assessing assertive behavior. Behavior Therapy, 1973, 4, 398-406.)
    - b. Career Development Questionnaire Items (IV.B)

7. Post-treatment Assessment
    a. Evaluation Exercise x
    b. Objective ii
8. Follow-up Assessment NA
9. References
    a. Clark, C.C. *Assertive skills for nurses*. Wakefield, Massachusetts: Contemporary Publishing Company, 1978.
    b. Grissum, M., & Spengler, C. *Womanpower and health care*. Boston: Little, Brown, and Company, 1976.
    c. Herman, S.J. *Becoming assertive: A guide for nurses*. New York: D. Van Nostrand Company, 1978.
    d. Hutchings, H. & Colburn, L. An assertiveness program for nurses. *Nursing Outlook*, 1979, 394-397.
    e. Jakubowski-Spector, P. Facilitating the growth of women through assertiveness training. *The Counseling Psychologist*, 1973, *4*, 75-86.
    f. Lange, A.J. & Jakubowski, P. *Responsible assertive behavior: Cognitive/behavioral procedures for trainers*. Champaign, Illinois: Research Press, 1976.

III. DESIGN CRITERIA

A. Objective: After completing the activity, the student should be able to define assertiveness, nonassertiveness, and aggressiveness, and to distinguish among the three when provided a written evaluation.

B. Directions: Read Instructor Information Sheet, student materials, and as many of the references as possible. Secure ample copies of the Rathus Assertiveness Scale (RAS), the Student Information Sheet, the Student Handout, the Assignment Sheet, and the Evaluation Exercise.

Distribute copies of the RAS. After everyone has completed the scales, begin a class discussion by noting that understanding one's basic rights is essential to mastering assertion skills. Ask students to write ten of their basic human rights by completing the phrase, "I have a right to. . ." Form small groups (5-7 persons) and ask students to discuss their lists of rights. Return to the large group and continue discussion of recurring or common rights. End discussion by distributing copies of Student Handout. Ask students to describe the "picture" that is imagined when you say the phrase, "an assertive nurse." Select students to share individual images or self-talk concerning the assertive nurse. Often, students will offer the following descriptions: "pushy," "big and mean," and "Hard to get along with. . ." Explain that such descriptions reflect aggressiveness rather than assertiveness. Emphasize the general confusion regarding the differences between assertion and aggression. Distribute copies of the Student Information Sheet and discuss terms. If activity E/S-1 has been completed prior to this activity, review problems in the socialization of women which lead to passive, nonassertive behavior. Present passive aggressive behavior as an unacceptable alternative to assertion.

Stimulate discussion by requesting examples of interactions in the hospital or the home. Ask students to label the behaviors in the interactions as "assertive," "nonassertive," "aggressive," or "passive aggressive." Help students to be concrete in describing examples. Ask them to think about the self-talk that occurs--including labels for the behaviors of self and other. After sufficient discussion, distribute copies of the Assignment Sheet. Read the instructions to the students and establish a due date for the written assignment (exercise).

At the next class meeting, collect Assignment Sheets. Then, distribute copies of the Evaluation Exercise. Allow approximately five minutes for completion of the evaluation. Without discussion, begin related activity. Use scores from exercise to determine how frequently reinforcement of basic concepts should be offered in subsequent sessions.

Instructor Information Sheet

The female socialization process encourages women to act passively, to be obedient, and to abdicate their rights. The nursing occupation is particulary vulnerable to these restrictive expectations since it is generally considered a feminine occupation. To overcome this socialization process, assertiveness training has been suggested (Jakubowski-Spector, 1973).

Assertive behavior is standing up for one's rights in an open, appropriate manner so as not to violate the rights of others (see Student Information Sheet also). In appropriate assertion, one expresses empathy for the person as a part of the assertive message (Herman, 1978). Such assertions begin with statements like, "I understand that this is important to you . . ." or "I know you are very tired . . ."

One common mistake is to confuse assertion with aggression. The difference between the two is the purpose of the behavior. The purpose of assertion is to express one's needs, desires, and feelings; but, the purpose of aggression is to belittle or humilate.

Jakubowski-Spector (1973, p. 80) has stressed the importance of establishing a "personal belief system which will help the client to support and justify her acting assertively." Giving one's self permission to act assertively aids in the maintenance of assertive behavior and defends against irrational guilt or unjust criticism for acting assertively.

In addition to establishing a personal belief system, Jakubowski-Spector (1973) suggest two other convictions which are important to hold. It is helpful for the person to believe happiness follows the appropriate assertion of rights and to believe that non-assertion is ultimately harmful.

A variant of non-assertive behavior is passive-aggressive behavior. This type of behavior is passive in that the person does not openly stand up for one's rights and aggressive because its intent is to "put down" or manipulate. An example is "forgetting" to do something that someone asked you to do because you did not want to do it. Making vague insinuations is another way of being passively aggressive. If a co-worker comes in late and rolls the eyes and saying, "Some of us have to be at work on time," the person is exhibiting passive aggressive behavior.

Assertiveness training is being incorporated into nursing literature and educational programs (see Clark, 1978; Herman, 1978; Hutchings and Colburn, 1979). Training is viewed as a way to counteract the expectations of women to be submissive and self-deprecating (Hutchings and Colburn, 1979) and to give nurses skills for effective confrontation (Grissum and Spengler, 1976).

STUDENT INFORMATION SHEET

The following terms and information are taken from S.J. Herman's (1978) Becoming Assertive: A Guide For Nurses. Ask your instructor for references if you want to learn more about assertiveness.

ASSERTIVE BEHAVIOR IS:

That type of interpersonal behavior in which a person stands up for his or her own legitimate rights in such a way that the rights of another are not violated. Assertive behavior is a direct, honest, and appropriate expression of one's feelings, opinions, and beliefs. High-quality assertion also includes an empathic component that shows some consideration, but not deference, for the other person.

NONASSERTIVE BEHAVIOR IS:

That type of interpersonal behavior which enables the person's rights to be violated in one of two ways:

(a) the person violates her or his own rights when she or he permits herself or himself to ignore personal rights that are actually very important to her or him, or,

(b) the person permits others to infringe on her or his rights. Nonassertive behavior pays off by enabling the individual to avoid potentially unpleasant conflicts with others; however, various unpleasant internal consequences such as hurt feelings and lowered self-esteem are likely to occur.

AGGRESSIVE BEHAVIOR IS:

That type of interpersonal behavior in which a person stands for her or his personal rights in such a way that the rights of another person are violated. The purpose of aggressive behavior is to dominate, humilate, or put the other person down rather than to simply express one's honest emotions or thoughts (Jakubowski-Spector, 1973).

STUDENT HANDOUT

Assertive Rights

Every Person has the Following Basic Rights.

1. The right to judge your own feelings and thoughts and to express them.

2. The right to be treated with respect.

3. The right to be listened to and taken seriously.

4. The right to set your own values and priorities.

5. The right to offer no reasons or excuses for justifying your behavior.

6 The right to say "no" without feeling guilty.

7. The right to ask for what you want.

8. The right to say, "I don't understand."

9. The right to make mistakes--and be responsible for them.

10. The right to choose not to assert yourself.

ASSIGNMENT SHEET

The purpose of this assignment is to give you practice in distinguishing assertiveness, non-assertiveness, and aggression. Record on the log below several interactions you witness or experience in the next two days. Record the responses that are made and identify the kinds of behavior.

SITUATION	RESPONSE	KIND OF BEHAVIOR

EVALUATION EXERCISE

The purpose of this exercise is to determine if you are able to distinguish among (1) assertiveness, (2) non-assertiveness, (3) aggression, and (4) passive aggression. Write the numeral of the label which best describes the behavior in the blanks.

Situation 1:

You are assisting a staff nurse at the hospital where you are receiving your clinical training. While making the bed, she allows the clean sheets to touch the floor. You have learned of the health hazards of allowing this to occur. You say:

____ a. Nothing. Tell yourself it's not your place to say anything since you're just a student.

____ b. "The sheet touched the floor. I know you are aware of the health hazards in this. I think it would be best if we got a clean set of sheets."

____ c. "Are you going to put that sheet on the bed after it's touched the floor? Don't you care about your patients?

Situation 2:

Your clinical supervisor walks up to you in the hospital and tells you what a great job you did with your patient Ms. Jones. You say:

____ a. "Thank you. It's very important to me to do a good job with all my patients."

____ b. "I've been doing a good job with all my patients. It's about time you noticed."

____ c. (Blushing) "I did okay, I guess, but I didn't do as well as a real nurse would have.

Situation 3:

You got up at 5 a.m. to study for an exam, went to class all day, and then stayed in the library until 9 p.m. When you get home, all you want to do is take a hot bath and go to bed. As you walk in the door, your husband tells you he has a covered-dish luncheon tomorrow and he needs you to fix a dish for him to take. You say:

____ a. "Fix it yourself, you lazy so and so."

____ b. "O.K." (heavy sigh)

____ c. Nothing. You walk in the kitchen and start banging pans loudly.

____ d. "I am extremely tired and very much need to take a bath and go to bed. I would like for you to fix your own dish for the luncheon."

To the instructor. . . The following answers can be used to score the exercise: (1) a - 2, b - 1, c - 3; (2) a - 1, b - 3, c - 2; and (3) a - 3, b - 2, c - 4, d - 1.

Appendix G

Formative Evaluation: Initial Outcomes of Multimodal Career Education

FORMATIVE EVALUATION OF MULTIMODAL CAREER EDUCATION

Formative research to "tinker" with components of multimodal assessment and career development interventions was conducted during Spring 1980 and Fall 1980 semesters. There were trials of various instruments in the assessment battery and activities/exercises in the curriculum package. Several exemplary evaluations are discussed below.

In the Fall 1980 "Personal Development for Nursing Students" course, the multimodal approach was presented as a classroom activity in which lecture was followed by completion of Multimodal Career Assessment Charts by students. The procedure for completing the charts was similar to the guidelines contained in Appendix E. Students identified strengths and needs according to factor or modality. The most interesting finding of this review was that 27 percent of the total strengths identified by students were classified as Self-Talk, while 40 percent of the total needs (excesses/deficits) were also classified as Self-Talk. Therefore, the significance of self-talk in the shaping of nursing students toward or away from the profession was translated into an outcome variable (see Appendix C) for the quasi-experimental trial (Spring 1981 semester).

A major formative evaluation of some objectives and instructional components in the project was conducted in the Fall 1980 semester. The sequencing of assessment and intervention was reviewed. In addition, close attention was directed to the attainment of minimal effectiveness level objectives. Evaluation of objectives included formal testing, demonstration, behavioral observation, self-rating, and instructor rating. Information gathered during and after the "Stress Management" and "Career Planning" components suggested that nursing students require less intensive instruction in these areas. Administration of the C-S Scale, a behavioral assessment of stress and coping, supported the general observation that Odessa College nursing students managed stress well enough to reduce the priority of stress management training. Similarly, observations of skills and student verbalizations indicated that training in job acquisition was unimportant. The aforementioned course outline and information regarding the outcomes of C-S Scale testing are included in this appendix.

Psychology 1201 -- "Personal Development for Nursing Students"

COURSE DESCRIPTION

In addition to the activities described in the bulletin, the course will include instruction designed to build skills in educational planning, studying, career planning, relationship enhancing, problem solving, and coping. Individual assessment and counseling can be arranged to support the psychological education and skills training. Students will be expected to contribute significantly to the planning and decision-making of the course in order to make it as individualized as possible. The course is special in two respects: a new "multimodal career education" curriculum will be used, and the instruction will be directed to the unique concerns of nursing students.

GOALS AND OBJECTIVES

The course uses the group format to attain goals and objectives for each class member. Various instructional approaches will be enlisted in the class meetings, including lecture, group discussion, demonstration, audio-visual presentation, individual exercise, group activity, and behavioral rehearsal. Exercises and activities involve reading, role-playing, self-monitoring, interacting, questioning, observing, test-taking, and reporting. In order to insure that student needs are met, the effects of the components of the course are measured by ongoing evaluation. General goals and specific objectives are organized according to categories related to the purpose of the course.

I. Educational Planning and Preparation

   A. To orient the student to college programs and services that will promote career development

      1. After completing the course, the student should be able to write a definition of "personal development" that is rated as accurate and sufficient by the instructor.

      2. After completing the course, the student should be able to complete in writing an Individual Educational Plan which includes present career ladder nursing requirements as well as continuing education needs for advancement in the profession.

   B. To promote the student's acquisition of basic educational skills

      1. After completing the course, the student should be able to recognize the Five Rs of Effective Notetaking when presented a written list.

      2. After completing the course, the student should be able to discuss, when asked, at least one strategy for improving scores on objective tests.

II. Career Exploration and Occupational Information

A. To encourage the student's understanding of the concept "career"

1. After completing the course, the student should be able to state a personal definition of "career" that includes short- and long-range goals and emphasizes lifelong learning.

2. After completing the course, the student should be able to list and describe the modalities and factors that form the "Multimodal Career Education" model.

B. To enable the student to identify and use career resources

1. After completing the course, the student should be able to compare and contrast the status of the nursing profession with the status of at least one other health profession by using two or more resources.

2. After completing the course, the student should be able to state the influence of supply and demand in the labor market upon the professional status of nurses.

III. Interpersonal Relations and Communication

A. To promote the student's acquisition of personal relationship skills

1. After completing the course, the student should be able to discriminate between assertiveness and nonassertiveness or aggressiveness in evaluating hypothetical social interactions.

2. After completing the course, the student should be able to describe in writing at least four categories (core dimensions) of facilitative communication.

B. To promote the student's acquisition of professional relationship skills

1. After completing the course, the student should be able to discuss the relationship between the social structure of the hospital and cues for "appropriate assertion."

2. After completing the course, the student should be able to describe the professional relationships among the nurse, the physician, and the hospital administrator.

IV. Problem Solving and Decision Making

A. To enable the student to engage in effective problem solving

1. After completing the course, the student should be able to apply the problem solving approach of D'Zurilla and Goldfried to an academic/occupational concern.

2. After completing the course, the student should be able to design a self-management intervention and a self-contract for a stress or adjustment problem.

B. To enable the student to engage in effective decision making

1. After completing the course, the student should be able to discuss the advantages and disadvantages of first impression and stereotyping in person perception.

2. After completing the course, the student should be able to apply the "Self-Centering" exercise in reaching a personal decision.

V. Job Acquisition and Maintenance

A. To promote the student's development in job finding and interviewing skills

1. After completing the course, the student should be able to complete an error-free employment application or resume.

2. After completing the course, the student should be able to rank potential jobs in terms of desirability according to the following factors: skill requirements, salary, location, hours, fringe benefits, working conditions, physical or mental requirements, advancement potential, and degree of supervision.

B. To promote the student's development in job maintenance skills

1. After completing the course, the student should be able to describe the "dress for success" approach.

2. After completing the course, the student should be able to identify at least two factors involved in efficient career advancement within a specific health services delivery setting.

COURSE COMPONENTS

ORIENTATION: two sessions devoted to assessment of individual strengths and needs and a general introduction to the course.

STUDY SKILLS: one session designed to improve skills in notetaking, studying, and test taking.

MULTIMODAL CAREER EDUCATION: one session intended to present an overview of the multimodal career development model.

SEX STEREOTYPING: one session devoted to exploration of sex bias and sex role stereotyping.

ASSERTIVENESS TRAINING: three sessions designed to improve skills in verbal and nonverbal assertion.

PROBLEM-SOLVING AND DECISION-MAKING: two sessions offered to present behavioral methods for self-managing change.

STRESS MANAGEMENT: two sessions devoted to building skills in coping with life demands and reducing tension.

CAREER PLANNING: two sessions intended to promote acquisition of skills in job seeking and career advancing.

EDUCATIONAL PLANNING: one session designed to explore academic options in attaining career goals.

EVALUATION

Evaluation of student performance will be based on the formula: 60% Attendance + 20% Assignments + 20% Average Test Score.

Attendance: Number of class meetings attended ÷ number of class meetings held

Assignments: Number of assignments completed ÷ number of assignments given

Average Test: 60-100 points per test according to objective criteria

In order to receive credit, an assignment must be submitted during the class meeting in which it is due or before the next scheduled class meeting.

C-S SCALE DATA

Source: Fall, 1980 Nursing Class

SCALE	AVERAGE SCORE	RELATIVE STRESS/ QUOTIENT	RANGE
Self-Sentiment Subscale	74.83	0.779	53-88
Cognitive Management Subscale	61.00	0.693	40-87
Somatic Management Subscale	69.55	0.668	53-88
Personal Performance Management Subscale	122.94	0.668	93-147
Interpersonal Performance Management Subscale	90.72	0.687	70-117
Coping Subtotal	419.05	N/A	321-523
Stressor Subscale	21.66	N/A	8-30
Stress/Coping Quotient	N/A	0.051	0.020-0.080

TABLE 3. GUIDELINES FOR INTERPRETING C-S SCALE

SUBSCALE	COMMENTS
Coping Subscales	In general, Relative Strength Scores of .800 or above indicate exceptional ability, .700-.799 indicate strength, .600-.699 indicate sufficient coping ability, .500-.599 indicate insufficient coping ability, and .499 or below indicate sensitivity or need.
Self-Sentiment Subscale	This is perhaps the most important subscale, indicating sense of personal power and commitment to change. High scores suggest success from self-help or counseling interventions.
Cognitive-Management Subscale	There is usually much variability among scores in any group administration. Strength in this area of functioning predicts high self-concept, self-control, and optimism. Weakness in this area is often associated with negative self-talk, low estimates of self-worth, and depression.
Somatic-Management Subscale	Adults often score low in this area due to lifestyle excesses, poor health practices, and lack of commitment to relaxation. High scores may indicate a fundamental resistance to the negative effects of stress.
Personal Performance Management Subscale	Thus far, our research has found this area to be the weakest among the subscales. Low scores suggest insufficient problem-solving and time management skills. Also, there is a tendency to resist structured, systematic behavior change efforts among low scorers. Many persons do not accept the notion that problems can be alleviated by changing behaviors and situations.
Interpersonal Performance Management Subscale	High scores indicate extroversion and satisfaction with interpersonal relationships. Low scores suggest withdrawal, insufficient assertion and communication skills, and, perhaps, shyness.
Stressor Subscale	Scores of 18 or above usually indicate much life change and environmental demand. However, high stressor scores may be offset by high coping subscale scores, resulting in low stress-coping quotients. This test takes the significant perspective that stress (and resulting negative health and psychological effects) is a function of an imbalance between the demands of the environment (stressors) and the coping resources of the individual.

NAME ______________________

DATE ______________________

INDIVIDUAL PROFILE: STRESS-COPING SCALE (FORM R)

PART I. · COPING SUBSCALES

A. Self-Sentiment Subscale: Items measure locus of control, expectancy for change, general orientation for problem-solving, and personal power.

You scored _________ points out of 96 possible points. For comparing your scores among the subscales, your relative strength score on this subscale is _________.

B. Cognitive Management Subscale: Items measure cognitive behavior, imagery, self-talk, and self-instruction.

You scored _________ points out of 88 possible points. For comparing your scores among the subscales, your relative strength score on this subscale is _________.

C. Somatic Management Subscale: Items measure relaxation, diet, exercise, lifestyle, and involvement in pleasant events.

You scored _________ points out of 104 possible points. For comparing your scores among the subscales, your relative strength score on this subscale is _________.

D. Personal Performance Management Subscale: Items measure problem-solving, planning, time management, and behavioral self-management, knowledge, and ability.

You scored _________ points out of 184 possible points. For comparing your scores among the subscales, your relative strength score on this subscale is _________.

E. Interpersonal Performance Management Subscale: Items measure assertiveness, social skill, interpersonal relations, and communication.

You scored _________ points out of 132 possible points. For comparing your scores among the subscales, your relative strength score on this subscale is _________.

PART II. STRESSOR SUBSCALE

Out of 62 stressful events, you reported _________ stresses within the last twelve months.

PART III. STRESS-COPING QUOTIENT

The ratio of coping score to stressor score reported by you was _________

$$\frac{\text{Stress}}{\text{Coping}}$$

Your quotient of _________ may be compared to the quotient of your group, _________.

APPENDIX H

Developmental Research and Utilization

Developmental Research and Utilization Model

Developmental Research Phase	Concerns	Operations	Exemplary Activities
I. Analysis	A. Problematic Human Condition	1. Problem Statement	Problem analysis and identification, "state of the art" review
	B. Basic Information Source	2. Information Selection	Selection of most relevant source, such as basic or applied research, scientific technology, practice experience
II. Development	C. Relevant Data	3. Information Gathering and Assessment	Literature review, site visits, consultation
	D. Product Design	4. Product Innovation	Novel assembly, novel application, invention, selection of curricular language
	E. New Product	5. Product Realization	Construction of prototype, written statement of practice procedure
III. Evaluation		6. Trial Use	Pilot implementation, demonstration project, evaluation study
	F. Trial and Field Implementation	7. Data Collection	Collection of outcome data by means of field experimentation, field study, evaluative research
	G. Outcomes of Use	8. Product Evaluation	Research evaluation, program evaluation cost-benefit analysis

Developmental Research and Utilization Model (Continued)

Utilization	Concerns	Operations	Exemplary Activities
IV. Diffusion	H. Diffusion Media	9. Diffusion Media Preparation	Preparation of articles, books, and training media
		10. Product Information Dissemination	Publication, training, professional education, field demonstration workshop
V. Adoption	I. Broad Use	11. Implementation by Users	Use by practitioners, program change and administrative follow through
		12. Product Institutionalization	

Appendix I

Exercise Evaluation

Exercise ____________________

Name ________________________

Date ________________________

EXERCISE EVALUATION

Draw a circle around the numeral that best describes your evaluation of the exercise.

1. Simple 1 2 3 4 5 6 7 Complex

Comments:

2. Threatening 1 2 3 4 5 6 7 Reassuring

Comments:

3. Task-Oriented 1 2 3 4 5 6 7 Person-Oriented

Comments:

4. Helpful 1 2 3 4 5 6 7 Worthless

Comments:

5. Interesting 1 2 3 4 5 6 7 Dull

Comments:

6. Did not achieve objective 1 2 3 4 5 6 7 Did achieve objective

7. SUD SCALE: Before ________ After _____